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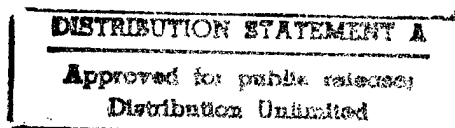
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China Report

AGRICULTURE

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23 January 1985

CHINA REPORT

AGRICULTURE

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NATIONAL

HE KANG ANSWERS QUESTIONS ON AGRICULTURAL REFORM

HK191001 Beijing LIAOWANG in Chinese No. 48, 26 Nov 84 pp 15-17

["Special Feature": "Agricultural Reform and Quadrupling--He Kang, Minister of Agriculture, Animal Husbandry, and Fishery, Interviewed by LIAOWANG Reporter"--passages within slantlines published in boldface]

[Text] During a recent inspection tour of Jiangsu, Henan, and Anhui, Comrade Hu Yaobang said that without the quadrupling of agriculture, it would be difficult to quadruple the output value of industry and even if it were quadrupled, it would be unstable... Therefore, only by quadrupling agriculture can we further ensure the quadrupling of industry and can there be bright prospects for the development of the national economy.

How then should we continuously develop agricultural reform and attain the objective of quadrupling the output value of agriculture within a certain period in the future? Concerning this issue, a LIAOWANG reporter interviewed He Kang, minister of Agriculture, Animal Husbandry, and Fishery and asked for his views on the following questions:

/What are the achievements and characteristics of the agricultural reform in the last 5 years?/

He Kang held that the 3d Plenary Session of the 11th CPC Central Committee was a historic turning point for the development of China's agriculture. The reform of agriculture in the last 5 years has brought about an unprecedented new situation in China's agriculture: The total output value of the nation's agriculture increased at a yearly average rate of 7.9 percent from 1979 to 1983, exceeding the average growth in the last 30 years by a big margin. The basic reason for the vigorous development of agricultural production within a short period of time, thus manifesting its enormous vitality, is that the CPC Central Committee adhered to the ideological line of seeking truth from facts, straightened out the "leftist" mistakes existing over a long time in the guiding ideology for agriculture, adopted a series of principles and policies for accelerating the development of agriculture and enlivening the rural economy, readjusted and reformed the rural economic system which did not correspond to the development of the rural productive forces, courageously eliminated the defects in certain links of the production relations and in certain aspects in the disposition of the productive forces, and enormously

aroused the initiative of the 800 million peasants for socialist production, which installed great vitality in the rural economy and agricultural production.

At present, China's agriculture has entered a new period of development. The rural economy is turning toward specialization, commercialization, and modernization. This is a significant characteristic in the current agricultural reform. He Kang pointed out: By turning toward specialization and commercialization, we mean that the vast numbers of peasants have extricated themselves from an economy characterized by small but complete and by self-sufficiency and semi-self-sufficiency and have further implemented social division of labor and, through constantly applying new technologies, rationally utilized the natural resources in agriculture, thus increasing the farm, animal, and fish products and raising the commodity rate and labor productivity by a big margin. By turning toward modernization, we mean the efforts made in improving the conditions of agricultural production and raising the level of productive forces, the popularization of large numbers of agricultural scientific research achievements, and the growth in the numbers of agronomists and agrotechnicians. All these have laid sound conditions for quadrupling the total output value of agriculture.

/How are we to accomplish the grand objective of agricultural development by the end of the century and what are the grounds for realizing this objective?/

He Kang said: In light of the strategic objective set forth by the 12th CPC National Congress, the Ministry of Agriculture, Animal Husbandry, and Fishery has tentatively planned to increase the total output value of the nation's agriculture by 180 percent by the end of the century. If the output value of town and township enterprises is included, we will be able to attain the objective of quadrupling agriculture, that is, on the basis of 252.3 billion yuan in 1980, reach 1,037.8 billion yuan. Of this, the output of grain should total 1,000 billion jin and the per capita yearly net income of the peasants should top 800 to 1,000 yuan.

In light of the analysis on the development of agriculture in the last 5 years, we feel that there is latent potential and reserve strength for developing agriculture. Therefore, we can say with assurance that agricultural quadrupling is attainable. Our confidence is mainly based on the following facts: First, the rapid development of town and township enterprises. The total output value of industry of the nation's town and township enterprises in 1983 was 92.8 billion yuan, an increase of more than 100 percent over 1979 and a yearly average increase of 14.5 percent. In the first half of this year, this figure increased again by a big margin. According to estimates, by the year 2000, 40 percent of the rural labor force (180 million people) will be transferred from farming to the town and township enterprises. Consequently, even if we maintain the average labor productivity level of the town and township enterprises at 2,727 yuan as in 1981, the nation's annual total output value can reach 500 billion yuan, approximately half of the quadrupled total output value of agriculture. Second, the conditions for China's agricultural production are constantly improving. The

bumper harvests in agriculture reaped in the last 5 successive years are closely related to the role of the building of agricultural basic facilities in the past 30 years since the founding of the PRC. Due to the correctness of the policies after implementing the contracted responsibility system based on households with payment linked to output, the enthusiasm of the vast numbers of peasants for improving the condition of farm production has run high and the state has gradually increased the investment for agricultural capital construction and the supply of the means of production, such as farm machines, chemical fertilizer, pesticide, plastic goods, diesel oil for farm use, and so on. We have also attained remarkable achievements in the survey of natural resources in the agricultural divisions. All this will provide a reliable guarantee for the sustained development of agriculture. Third, the value of grain will be enormously increased when it is been used to develop animal husbandry, aquatic breeding, and food processing industry. Due to the weak foundation and low level of China's animal husbandry, aquatic breeding, and food processing industry, the phenomenon of grain surpluses has recently appeared in certain localities. If we can actively process grain into fodder or food, then we can have plenty of meat, eggs, milk, poultry, fish, and other nonstaple foodstuffs to improve the people's life. Thus, we can release another immense latent potential of the development of agricultural production. Fourth, the development of rural science, technology, and education is the reserve potential for quadrupling agricultural output value. So far, there are more than 100,000 agricultural research institutes, centers for popularizing agrotechniques, and veterinary stations, with more than 700,000 workers and staff members. An agricultural education system, including higher and secondary agricultural education, education for rural cadres at all levels, and technical training for peasants, has begun to take shape. Of this, there are 59 agricultural institutions of higher learning, with a total number of 930,000 students. With the development of rural science, technology, and education, such "reserve potential" will be conspicuously manifested.

Viewed from the above facts, China's agriculture is full of promise. Particularly with the acceleration of the reform of the entire economic structure centered on cities, with the further free-flowing of urban and rural circulation channels, and with the mutual support of urban and rural areas, the commodity production of agriculture, animal husbandry, and fishery will develop in a larger scale and we will certainly be able to realize the grand objective of quadrupling the total output value of agriculture.

/What is the focus of the reforms in the agricultural, animal husbandry, and fishery departments at present and within a certain period in the future?/ He Kang said: The focus is to carry out reform centered on quadrupling agriculture, use reform to push modernized agriculture with Chinese characteristics in the course of reform. Specifically speaking, we should: 1) Reform the management system and the methods of operation; 2) Readjust the agricultural structure; 3) Reform the system of rural scientific research and education; and 4) Reform the methods of investment.

The general orientation of reform is to practice integration of agriculture (animal husbandry and fishery), industry, and commerce and combination of production, supply, and marketing, open the domestic trade markets, and gradually establish a modern agricultural production system with multi-economic components, various operation methods, multi-level specialization and commercialization, and inherent vitality. It is also necessary to supply the domestic and foreign markets with fine quality, abundant, and competitive farm, animal, and fish products, so as to satisfy the increasing social needs.

With regard to the reform of the management system and operation methods, we must further stabilize and perfect the system of contracted responsibilities based on rural households with payment linked to output, develop the various forms of economic responsibility systems in fishery, farm machine, town and township enterprises, popularization of technology, state farms, and other trades, and run well household (livestock and fishery) farms.

/What does the readjustment of rural industrial structure mean and what are the problems to be noted in the readjustment?/ He Kang said: The readjustment of the rural industrial structure means readjusting the single-product economy practiced over a long time in China's agriculture and readjusting the irrational economic structure in various occupations. We must develop the rural areas and agricultural production in an all-round way, open up new fields for farm production, and arrange the rural labor forces according to the new industrial structure.

He Kang pointed out: The readjustment of the rural industrial structure can be divided into three levels, namely, farming; agriculture, forestry, animal husbandry, and fishery; and the rural economy. We must, in all three levels, strictly follow the natural law and the economic law, take note of suiting measures to local conditions and comprehensive utilization, and maintain the ecological balance.

In farming, we should lay equal stress on grain, economic crops, and fodder. The production of grain should be maintained at a certain growth level and that of economic crops should meet the changes of market and consumption needs and should be developed in a planned manner. The sown area of fodder crops should be gradually expanded. In a word, we should develop toward the direction of fine quality, high efficiency, and intensive farming.

In agriculture, forestry, animal husbandry, and fishery, we must relax the policies on exploiting mountains, pastoral areas, water resources, and shoals, fully and rationally utilize the various natural resources, and speed up development. In coordination with the forestry departments, the departments of agriculture, animal husbandry, and fishery should continue to carry out mass tree-planting activities and maintain and expand the farmland and forestry network. It is necessary to encourage the movement of grain, funds, talented people, labor force, and technology toward animal husbandry and aquatic breeding. Where conditions permit, the localities should vigorously develop fodder crops and grow forage grass, accelerate the development of animal husbandry, increase the output of meat, milk, eggs, and fish as quickly

as possible, and improve the people's diet. The structure of animal husbandry should also be readjusted and we must pay attention to the development of low-fat and high-protein animals such as cattle, sheep, rabbits, poultry, and so on. The focus of fishery production is to allow the state, collective, and individual to develop simultaneously, to vigorously develop freshwater and seawater aquatic breeding, and to put an end to the situation of "difficulties in eating fish" in cities as quickly as possible.

In the rural economy it is necessary to integrate the urban and rural economies and to develop agriculture, industry, and commerce in an all-round way. Only in this way can we fundamentally transform the state of the peasants merely supplying grain and producing raw materials for industry into simultaneously engaging in agriculture, industry, commerce, building industry, service trade, transport, and other trades. At present, the town and township enterprises should vigorously develop the forage industry and food processing industry and gradually use modern processing equipment and means to carry out intensive processing and attain better economic results. In this respect, we must take note of putting an end to the state of "government" and the people contending for benefits and genuinely turn the town and township enterprises into economic entities of the peasants. Under the new situation of the reform of the economic structure carried out in cities, it is necessary to do well the overall planning and rational distribution of town and township enterprises and to constantly achieve better economic results and enhance the competitiveness of enterprises. It is necessary to support the enterprises run by peasant households and joint associations. Rural highways and water transport should be gradually developed. On the basis of the overall development of the rural economy, we must speed up the construction of small towns so that they can become rural political, economic, and cultural centers and a network connecting urban and rural economies.

He Kang held that we must effect a major change in guiding ideology and adopt new ideas, and methods. Moreover, we must also effect the following two changes in ideology as quickly as possible: First, from merely paying attention to the quantity of farm, animal, and fish products to simultaneously paying attention to quantity and quality of these products; and second, the agricultural, animal husbandry, and fishery departments should turn the principle of their service work from mainly guiding farming to mainly guiding animal breeding and the processing of farm and sideline products. Only in this way can we meet the needs of readjustment of the rural industrial structure.

/Concerning the reform of the agricultural scientific research and education system,/ He Kang said: It is necessary to establish a new type of scientific research system which is advantageous to the integration of scientific research and production and which can give full play to the role of scientific and technical personnel. We must readjust the existing orientation and task of scientific research units and reform the methods of using scientific research outlays. For example, in basic research, we must gradually effect the transition from depending on the state treasury for operating expenses to establishing the system of foundation funds. With regard to research in the application and development of scientific achievements, the system of signing

contracts with user organizations that list remuneration must be implemented so that the scientific research units can gradually finance all or most of their activities with their own funds. We must also formulate policies encouraging agricultural, scientific, and technical personnel to work in the remote areas and the basic levels. In the reform of the education system, we must carry out the principle of laying equal stress on college education and social education and gradually form a rational agricultural education structure, which includes higher education, cadres' training, and peasants' vocational education.

/With regard to the reform of the investment methods in agriculture,/ He Kang explained: In mustering funds for agriculture, animal husbandry, and fishery in the future, we must foster the idea of mainly depending on the accumulation of agriculture itself instead of merely relying on state investment. As the state cannot increase the investment for agriculture by a big margin in the near future, the only way out is to try by every means to exploit sources of funds and to implement the principle of the state, collective, and individual developing simultaneously and of combining domestic and foreign investment. The method of investment with remuneration should be implemented in all the projects which can make a return on that investment so that the funds can be mustered to establish various foundation funds and be used for circulation.

/The circulation system of farm products and many other aspects which are directly related to the enlivening of the rural economy do not correspond to the development of commodity economy, so how should the reform in these aspects be carried out?/ He Kang held that in the course of reform, it is necessary to organically combine the development of the commodity economy with the guidance of state planning and to gradually establish a system which is quickly adaptable and which can operate flexibly. From now on, we should gradually expand the proportion of guidance planning and market regulation and, through market mechanism and other economic means, give full play to the role of pricing, taxation, credit, interest rates, and other economic levers. At present, it is necessary to straighten out the pricing relations and to remove the obstacles caused by the irrational pricing system which hinder the development of rural commodity production. We must further relax policies, dredge all the commodity circulation channels, expand commodity exchanges between urban and rural areas and between different regions, and encourage peasants to run shops in cities to market their farm and sideline products. The supply and marketing and credit cooperatives should continue to simplify administrative procedures and delegate power so that they can genuinely become the cooperative economic organizations of the peasants.

Meanwhile, the agricultural, animal husbandry, and fishery department at all levels should shift their ideology as quickly as possible onto the track of developing commodity production, change the state of merely paying attention to production irrespective of circulation, turn their work from merely exercising administrative management to providing service and guidance, coordinate with the departments concerned to render pre- and post-production services and give guidance in technology, information, and policies, and push

the development of agriculture toward specialization, commercialization, and modernization.

/In order to quadruple the total output value of agriculture, the acceleration of agricultural technical transformation is also an important link. In this respect, what are the problems that demand prompt solution?/ He Kang held: At present, China's agricultural production still depends mainly on manual labor, its capability in resisting natural disasters is limited, and it falls short of the demands of agricultural modernization. In order to put an end to such a backward state, it is imperative to speed up agricultural technical transformation. In this respect, it is necessary to sum up the experience and lessons of agricultural technical transformation carried out in the past decades and to further probe into the models, ways, objectives, speed, and stress of different localities, and a series of major problems concerning China's agricultural technical transformation. He is in favor of the following principles: 1) China has a large population with limited arable land. Proceeding from this reality, we must, in agricultural technical transformation, lead the peasants' enthusiasm toward intensive and meticulous farming and attaining better economic results. The road of extensive cultivation and plunderous farming which has been proved wrong in practice should no longer be taken. 2) We should carry forward the essence of ancient Chinese agriculture so as to make the traditional experience of intensive farming more scientific and modernized. 3) We should combine the adequate input of industrial materials with the internal forces of nature which react upon each other and take the road of integrating biological technology with engineering technology and organic agriculture with inorganic agriculture. 4) Science and technology should meet the needs of the development of the entire rural areas and should serve to stabilize the new production relations and the system of contracted responsibilities with payment linked to output. 5) We should meet the new challenge of the worldwide technological revolution and apply all advanced foreign science and technology to agricultural technical transformation as quickly as possible.

Provided we abide by these principles, we will be able to accomplish the task of China's agricultural technical transformation in a faster and better manner.

/With the marked increase in the peasants' income, what changes have taken place in their consumption?/ He Kang said: According to the sample investigation on the average per capita living expenses of the peasants' households, in 1978, of the average per capita spending for living expenses of the rural households in the whole country, the consumption of food accounted for 68.9 percent, clothing 13.8 percent, fuel 6.85 percent, housing 2.6 percent, and articles for daily use and other consumption 6.97 percent. By 1983, of the spending for living expenses, the consumption of food and clothing dropped to 59.3 and 11.13 percent respectively, housing rose to 11.1 percent, and articles for daily use and other consumption rose to 10.83 percent. It can thus be seen that, except for some remote mountain areas, the problems of food and clothing are basically solved in the rural areas. The peasants now demand better housing and a better life. This is one of the trends of the change in rural consumption.

/On the problem of leading the peasants in consumption and promoting the quadrupling of agriculture,/ He Kang emphatically pointed out: We must attach great importance to consumption and regard it as an important link of the economic development, like production, exchange, and distribution. Without the daily increasing consumption, it would be impossible to develop rural commodity production. In this sense, we can say that without consumption there would be no production.

With a population of 800 million, the rural areas form a market with great latent potential. In order to exploit this huge market, one of the important aspects of work is to lead and guide the peasants in consumption and to use consumption to promote the development of industrial and agricultural production. In this respect, we must do the following: 1) Vigorously publicize that the purpose of socialist production is to constantly meet the people's increasing material and cultural needs. 2) Emancipate minds and dare to eliminate the "leftist" stuff and outmoded habits and customs which shackle the peasants' thinking and particularly make a clear line of distinction between modern life style and the bourgeois way of life. 3) Vigorously popularize and improve the scientific and cultural level of the broad masses of peasants and let them understand that agricultural modernization will inevitably lead to a modern life style in the rural areas so that they will look forward to, and pursue a modern agricultural mode of production as well as way of life. 4) This is the most fundamental point of the four, namely, vigorously develop production, enliven the rural economy and commodity circulation, promote exchanges of materials between urban and rural areas, and lay conditions for expanding consumption in the rural areas.

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ECONOMIC BENEFITS, FUTURE OF HYBRID RICE OUTLINED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL PRODUCTION TECHNOLOGY] in Chinese No 9, Sep 1984, pp 14-17

[Article by Chen Jiansan [7115 1696 0005]: "The Economic Benefits and Development Prospects of Hybrid Rice"]

[Text] China's rice breeders have pioneered hybrid rice research and utilization, creating a new breakthrough in the world's rice breeding methods. Hybrid rice includes both indica and japonica varieties. Hybrid indica rice is already being produced on large areas of land, while hybrid japonica has begun to show results in increasing yields. Of China's 1983 total grain output of 760 billion jin, rice constituted 330 billion jin, or 43.6%. The 80 billion jin of hybrid rice grown were about 24.0% of the total rice crop. In general, hybrid rice yields were about 150 jin/mu higher than those of conventional rice. Since China's per capita grain output is currently only about 760 jin, the development of hybrid rice is extremely significant in increasing grain yields and total output.

1. The Economic Benefits of Hybrid Rice

From 1976 through 1983, hybrid rice spread to a nationwide cumulative total of over 400 million mu, resulting in an increase of over 40 billion jin of rice, enough to provide the basic annual grain rations of 40 million people. Experimental data from 1980 indicate that under comparable production conditions, the 853.8 jin/mu yielded by Zhongza No 2 japonica rice is 25.02%, or 170.86 jin, higher than that of the control variety, Jingyue No 1; 33.7% higher than the maintenance line, Huangjin; and 33.8% above the restoration line, No 300. Zhongza No 1 japonica rice yielded 820.62 jin/mu, 20.16% (137.69 jin) above Jingyue No 1, 3.6% above the maintenance line, Jingyin 66, and 28.6% above the restoration line No 300.

The main reasons the yields of hybrid rice can exceed that of the standard varieties, and that of the parental pairs as well, are principally the following:

(1) Hybrid rice has a marked advantage in increasing output, manifested in the higher constituents of output of per-mu ear count, grain count per ear, and 1,000-grain weight, with the latter two being particularly important. Each ear of hybrid rice has approximately 150 grains, 15-20 more than conventional rice, with a 1,000-grain weight of 26-28 grams, 1-2 grams heavier than conventional rice. The rice output per mu is 100-200 jin higher, up 15-20%.

(2) Hybrid rice has a developed root system, with more roots and a faster rate of root development. For example, the root system of Zhongza No 1 japonica has 3.2-16.8 more roots than the conventional "Xifeng" rice. Its root length of about 40 cm is 15 cm longer than for "Xifeng." The root system has a stronger capacity for absorbing fertilizer, with sturdy stalks which resist fertilizer, drought and lodging and have a strong regenerative capacity.

(3) Hybrid rice has vigorous nutrient growth, with speedy re-greening, early tillering and a strong tillering capability. For example, a single stem of Zhongza No 1 japonica rice has 1.6-2.3 more tillers than does "Xifeng." The leaf surface index is large, 4-6 during tillering, 7.5-8.0 during the full heading stage, 5.5-6.5 during milking, and 4.5 during yellow maturity. These are 1.0-1.5 greater than the leaf surface indices of conventional rice at corresponding stages of growth. At the same time, the ethanol acid oxidase activity [yichun suan yanghua mei huoxing: 0044 6815 6806 8638 0553 5326 3172 1840] is lower than for conventional rice, the absorptive strength is lower, the colony light energy utilization rate is higher, and the dry matter accumulation per unit surface area is greater.

(4) It is hardy and has broad adaptability. Continuing to take Zhongza No 1 japonica as our example, in 1979, Beijing suffered from cold temperatures, yet the per-mu yield was still 944.7-955.1 jin, 27.5% higher than the conventional "Fengjin" variety. In 1981, this hybrid was planted in Jiao Xian, Shandong, where there was a serious drought. Conventional rice had virtually no harvest, while Zhongza No 1 japonica yielded a relatively good crop of 400-500 jin/mu. During the same year, Qishan Xian, Shaanxi was hit by a 40-year incident of flooding. The conventional rice yielded only 400-500 jin/mu, due to the low rate of grain bearing during

the milking stage, yet hybrid rice production reached 800 jin/mu. This shows how hybrid rice is resistant to cold, drought and flooding. The yield of hybrid rice is higher than that of conventional rice not only in fertile fields, fields with poor soil, fields subject to cold intrusion and muddy fields, but it can obtain high yields from low altitudes to high altitudes and from low latitudes to high latitudes.

The quality of both hybrid indica and hybrid japonica rice is superior to that of conventional rice. The protein content of hybrid indica has been measured at 9.5-10.5%, 1-2% higher than that of conventional indica rice. Its fat content is 2.6-2.8%, also higher than that of conventional indica. Hybrid indica is also quite palatable. For details on the qualities of hybrid japonica, see table 2. That table shows that although the starch content of hybrid japonica rice, at 70.04-73.88%, is inferior to the 74.66% of the conventional "Xifeng" rice, its protein content of 8.25-9.62% and lysine content of 0.21-0.28% are both good. Among the hybrids, Liming A/9098 has a protein content of 9.62% and Zhongza No 2 has a lysine content of 0.28%. The protein content of the conventional "Xifeng" is only 8.80%, while its lysine content is 0.25%. Zhongza No 1 japonica has a fat content of 3.61% and Liyou 57 has one of 3.22%, exceeding that of "Xifeng" by 0.51-0.90%. These data show that the nutritional indicators of hybrid rice are relatively good.

2. The Development Prospects of Hybrid Rice

At present, over 500 million mu in China are planted in rice, of which hybrid rice occupies 1/5, distributed mainly in the Chang Jiang basin and the plains and flat portions of hilly regions in south China. Recently, the Hunan Provincial Agricultural Institute and the Hejia Shanyuan Seed Farm, together with the Anjiang Agricultural College, bred a new combination of Weiyou 35 early rice and Weiyou 64 midseason rice, while the Guangxi Autonomous Region Agricultural Institute bred a new combination of Shanyou 33 late rice and Shanyou 30 select grade. These have shown a definite improvement over the former combinations in areas such as maturity period and resistance to cold, and have added new impetus to the development of hybrid indica rice. One can anticipate that, following continuous replacement by new varieties of hybrid rice, the area growing hybrid rice must grow continuously larger. If the area growing hybrid indica expands to 1/3 the rice area, that is, 150-170 million mu, its total output can reach

120-136 billion jin, calculated on the basis of 800 jin/mu. This could increase production of rice for the state by 15-17 billion jin, and could take care of one year's food grain rations for 15-17 million people.

Practice in various areas has demonstrated that the adaptability of hybrid japonica is even broader than that of hybrid indica, while its resistance to cold and drought is stronger. Doing an analysis based on present conditions, in China there are three areas where hybrid japonica has the best development prospects. One is the single-crop rice and double-crop late rice district of the middle and lower reaches of the Chang Jiang; a second is the single-crop rice region of southern mountain districts; and the third is the rice-growing region of the north.

The first is the japonica rice district of the middle and lower reaches of the Chang Jiang. This includes Jiangsu, Shanghai, Zhejiang, Anhui, Hubei, northern Hunan, Jiangxi and southeast Sichuan. It has a low altitude above sea level, and consists mainly of plains and flat river valleys. It has abundant rainfall, convenient irrigation, fertile soil, plentiful labor power, and good economic conditions, while the peasants there have a high technical level in scientific farming. After the harvest of the "three wheats" [wheat, barley, naked barley] and early rice, single-crop or double-crop rice can be planted. The cropping system adopted is usually one of "early indica, late japonica". This provides the eco-environmental conditions for developing hybrid japonica. For example, the level of production of late-season japonica is very high, 600-700 jin/mu, in the Tai Hu district of Jiangsu Province and the Hangjia Hu district of Zhejiang Province. Provided these districts can keep up in the work of breeding new combinations and as long as they pay attention to preventing and curing rice diseases and insect dangers, the area sown to hybrid japonica rice could grow to 60-80 million mu and could produce 48.0-64.0 billion jin of rice, a net increase of 6.0-8.0 billion jin with a value of 1.5-2.0 billion yuan. If this idea can be carried out, the supply deficiency of japonica rice in the Jiangsu-Zhejiang-Shanghai area can be overcome.

The second is the southern mountainous rice district. This includes Yunnan, Guizhou, Sichuan, western Hunan, western Hubei, the Dabie Mountains, the Wuling Mountains, and the Nanling mountains--the area of "vertical agriculture." Because of differences in the distribution of heat, this district can be divided into three zones: the first, at an altitude of less than 600 meters, is an indica rice zone with

good heat conditions, convenient irrigation, fertile soil, and a normal yield of 800-1,000 jin/mu; the second, at 600-900 meters above sea level, is a mixed indica-japonica zone, with a normal yield of 500-800 jin/mu; and the third, a japonica rice zone above 900 meters, has poor heat conditions and inadequate water control facilities, extensive cultivation, and a low level of production, with corn, potatoes, wheat and rice, the main crops, yielding 400-500 jin/mu. From 1979 to 1983, we carried out regional tests of hybrid rice and investigated its adaptability in Bijie [county], Guizhou; Baojing county in Xiangxi, Hunan; Guan county, Sichuan; and Lichuan county, Hubei. In Baojing county, Zhongza No 1 and No 2 were sown on 18 May, and had a growing period of 112-114 days. Stalk height was 99.3-97.5 cm, the actual grain count was 85.7 grains per ear, weight per 1,000 grains was 23.5-25.0 grams, and yields were 831.1-898.3 jin/mu. These varieties showed themselves to be early ripening, high yielding, and resistant to cold and drought. In Bijie, Zhongza No 1, bred on 18 April, had a total gestation period of 141 days, with stalk height of 82.6 cm, an actual grain count of 91 grains per ear, and a yield of 1,165.2 jin/mu. Not only did it exhibit characteristics of early ripening, high yields and resistance to rice neck blast, it also had the advantage of being able to ripen under low temperatures. In Baisha commune, in the hills of Guan county, Zhongza No 2 had a yield of 819 jin/mu, 20.3% higher than the best local variety, Xu japonica. Zhongza No 1 produced 16.2% more than Xu japonica. In Lichuan county, Zhongza No 1 japonica yielded 850-865 jin/mu, 15.1-16.1% higher than Keping No 3, and exhibited early ripening, increased yields, and hardiness. Of these three zones, the second and third are new to hybrid japonica. If seed production and cultivation techniques were popularized, the hybrid japonica area could spread to 40-50 million mu, with a total rice output of 32.0-48.0 billion jin, enough to feed 32.00-48.00 million people for a single year. An increase in rice yields of 200 jin/mu could increase total output by 8.0-12.0 billion jin.

Third, there are currently 3,000 mu of scattered paddy land in japonica rice in the north. The main grain crops of this region are wheat, corn and Chinese sorghum. With the "four modernizations" and the implementation of the responsibility system in rural areas, grain output has increased continuously, demanding improvements in quality on the basis of already high yields. The demand for husked rice has become ever more urgent, and the supply of japonica in particular has been unable to keep up with demand. At the same time, this area has spring drought and autumn flooding, relatively fertile soil, and good heat resources and light conditions, all

suitable for developing rice-wheat double cropping. Some districts with a certain amount of water control have changed from summer corn to a wheat-rice rotation. This has already become an important measure in developing commodity grain in those localities. In a 1979 experimental comparison of a wheat-rice rotation with conventional rice varieties in Fengtai district of Beijing Municipality, Zhongza No 1 yielded 936.1 jin/mu, 25% more than the conventional "Fengjin" variety. In 1983, Donghai county, Jiangsu, sowed on 27 May on barren ground [bai lian di: 4101 5245 0966], applying 10 jin of urea. The total growth period was 120 days, yielding 198,000 ears per mu, 120 grain per ear, adding up to 1,188 jin/mu. The advantage of hybrid varieties was quite pronounced. In the same year, Zhengzhou city planted 200 mu of Zhongza No 2. Each mu had an effective ear count of 250,000, with 29 grains per ear, a yield of 1,125 jin/mu in a total growing period of 125 days. The Huang-Huai Plain is flat, with abundant rainfall in the summer and fall, prime conditions for developing Zhongza No 2. According to the relevant data, this region could plant hybrid japonica rice on 50-60 million mu. This could produce 40.0-48.0 billion jin of rice, sufficient to feed 40-48 million people for a year, with a net increase in rice of 5.0-6.0 billion jin per annum.

In keeping with the natural characteristics, ecological elements and conditions of agricultural production in the rice district of the middle and lower reaches of the Chang Jiang, the southern mountainous rice district and the northern rice district, we have proposed that these three districts could expand the area devoted to hybrid japonica rice to as much as 150-200 million mu, producing a total of 120.0-160.0 billion jin of rice, an increase of 19.0-26.0 billion jin. If we then add 150-170 million mu devoted to hybrid indica rice, the area producing hybrid rice could reach 300-370 million mu, with a total output of 240.0-290.0 billion jin, a net annual increase in rice output of 34.0-43.0 billion jin. If this proposal can be carried out, 60-74% of the present rice area could be planted to hybrid rice. If the nationwide rice-growing area expands to 600 million mu, hybrids and conventional rices would be planted in a 1:1 ratio. This would provide a tremendous boost to solving China's grain problems and to both the export and internal markets for rice.

3. Problems in Further Developing Hybrid Rice

China's development and utilization of hybrid indica rice leads the world. The techniques for increasing yields through hybrid indica have already been grasped by the broad masses, while the techniques of seed production and propagation and three-line purification are already fully developed. China also stands in

the front ranks in the development and utilization of hybrid japonica rice. But if we are to continue to expand the area devoted to japonica rice, there are a number of concrete problems we must resolve. 1. In the Huang-Huai and Jiang-Huai regions, the problem of hybrid japonica combinations has basically been solved. The main problem is the lack of water sources. The key to solving this problem is the northward transfer of Chang Jiang water. 2. In southern mountain areas, the problem of hybrid japonica combinations has also basically been solved. For example, Zhongza No 1, Zhongza No 2 and Qingza No 25 are all quite well suited to growing in this region. But the conditions of production are relatively backward, so work is necessary in carrying out experiments, popularization and technical leadership. 3. In the middle and lower reaches of the Chang Jiang, the problem of finding suitable combinations has not yet been resolved very satisfactorily. At present, the main task is to concentrate all efforts on combinations. Once that problem has been taken care of, japonica rice will develop quite rapidly in this region. 4. In order better to popularize hybrid japonica rice, we must further publicize and spread its cultivation techniques and techniques for seed production, propagation and three-line purification and rejuvenation.

Table: Analytical Data on Nutrient Components of Hybrid Japonica Rice

Variety Name or Combination	Moisture %	Fat %	Starch %	Protein %	Lysine %	Source
Zhongza No 1	9.26	3.605	72.51	8.80	0.23	(1)
Zhongza No 2	10.14	2.470	70.95	8.52	0.28	(1)
Liming A X No 300	9.08	2.890	71.04	8.52	0.27	(1)
Jingyue No 1 A X No 300	9.60	2.660	70.49	8.25	0.26	
Liming A X 9098	9.44	2.610	70.88	9.62	0.23	(1)
Luomiou A X No 300	9.34	2.907	72.85	8.80	0.21	(1)
Xifeng C.K	8.71	2.705	74.66	8.80	0.25	(1)
Fengjin A X C57	9.39	2.665	71.59	8.52	0.27	(2)
Liyue 57	9.19	3.215	73.88	8.25	0.24	(2)

Key:

1. Crop Institute, Chinese Academy of Agricultural Sciences
2. Rice Institute, Liaoning Provincial Academy of Agricultural Sciences

CHINA EXPECTS HIGHER SUGAR PRODUCTION IN 1984-85

OW042024 Beijing XINHUA in English 1209 GMT 4 Dec 84

[Text] Beijing, 4 December (XINHUA)--China expects to produce about four million tons of sugar in the 1984-1985 processing season which started this month, according to the Ministry of Light Industry.

This will be about 150,000 tons more than the country's highest yield in the 1982-1983 processing period, and about 450,000 tons more than that for the 1983-1984 season.

A ministry official in charge of the sugar industry said favorable weather conditions this year in sugar cane-producing areas in southern China helped 533,000 hectares of sugar cane crops do well. Now pressing has started in most of the sugar producing areas. It is expected that the total output of cane sugar may reach 3.16 million tons, he said.

In the new season, the southern province of Guangdong, one of China's major cane sugar-producing centers, is expecting to produce 1.35 million to 1.4 million tons. In the previous season the province was hit by a strong typhon, and only 1.1 million tons of sugar were produced.

The official noted that in the new period sugar output of other localities will also rise to varying degrees.

He said, all of the beet sugar mills in northeast China are in operation and are expected to turn out a total of some 840,000 tons, about 100,000 tons less than in the previous season. He explained that the area sown to sugar beet has been cut in view of the drop in sugar content in the beet in the last few years, and a drought caused a reduction of sugar output.

By the end of 1983, China had 494 sugar mills capable of turning out 4.75 million tons of machine-processed sugar a year. This includes 386 mills with a total capacity of 3.68 million tons of cane sugar, accounting for 77.5 percent of the total, and 108 mills for beet sugar, with an annual capacity of 1.07 million tons, accounting for 22.5 percent. In addition, there is a production capacity of more than 200,000 tons of sugar processed by traditional methods a year.

He said, to spur the production of sugar the state raised the purchasing prices for sugar-bearing crops by 25 to 30 percent in 1979, and has ensured the supply of grain and fertilizers for the peasants ever since. As a result, the output of sugar has risen by 1.5 million tons.

The official said, to further raise China's sugar output, fine strains and new methods of cultivation will be adopted and existing mills transformed and expanded to cut down on consumption.

CSO: 4020/46

DECREASE IN NUMBER OF HOGS IN STOCK EXAMINED

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese
No 8, Aug 84 pp 44-46

[Article by Chang Jingwei [1603 2529 5588] of the Bureau of Farming and Animal Husbandry of Zhoukou Prefecture in Henan Province: "Correctly Handle the Problem of a Decrease in the Number of Hogs"]

[Text] Editor's Note: China had a particularly abundant harvest last year, yet the trend of a decrease in the production of hogs appeared in many provinces and autonomous regions. If this situation continues to develop, it will affect the supply of meat and grain to the people in the city and the countryside. Why are there abundant harvests of grain but a decrease in the production of hogs? Why are there current "difficulties in selling pork" in some places and "difficulties in buying pork" in others? What measures must we take to reverse the trend of a reduction in hogs? What reforms must we carry out in our reward policies, supply of feed, methods of buying and selling and pricing measures? We hope that comrades engaged in ideological work and actual work, through investigation and study, can put forth their own methods for solving these problems.

Why There Has Been a Tremendous Decrease in the Number of Hogs

After liberation, the growth of China's hogs was exceedingly rapid. Using 1978 as a limit, in only 29 years the number of China's hogs increased 4.5-fold to a total of more than 300 million and a more than 2-fold increase compared to the United States and the Soviet Union, which at the time had only a little more than 1 million hogs each. However, in the past 2 years, the situation has appeared in society of a tremendous decrease in the total number of hogs. We feel there are three main reasons to explain the decrease in the number of hogs during this period of vigorous agricultural development and flourishing industries in the countryside.

First, the speedy and lopsided development of hog farming was divorced from objective reality. With regard to the physiology of the digestion of hogs, our ability to acquire cheap feed is disappointing, and we must have a particular grain we can use as a base. In countries where the level of raising hogs

is fairly high, a hog requires 3 jin of mixed feed for each jin of weight that it gains, and of this, more than 80 percent must be choice feed. In the countryside in Henan Province, most places need 800 to 1,000 jin of choice feed to raise a 200-jin hog, and they use approximately 2 jin per day or 700 jin per year. Therefore, the development of hog raising must be suited to grain production. For a long time Henan has had a low level of 500-600 jin of grain per person per year. After some of the grain is used for seeds, is handed over to the state and is used for other purposes, each person only has approximately 400 jin in his grain ration. It is very difficult to use a large amount of grain to feed hogs. Yet under the mistaken leftist influences at the time, there was a lopsided development of hog breeding using administrative measures to increase special material incentives. Compared to 1950, in 1978 Henan's grain production nearly doubled, and due to the rapid increase in population, there was no increase in the average amount of grain per person. Yet the number of hogs raised increased 10.6-fold. If we raise hogs properly, every year we must take 700 jin of each person's 1,400-1,800 jin of grain per year to feed them, and obviously this is difficult to accomplish. If there is no choice grain, we must use course grain to replace the choice, and it is impossible for the hogs to digest the straw and corn stalks which make up their feed. This creates a group of emaciated and dying hogs. Since the 3d Plenum of the 11th CPC Central Committee, peasants have had autonomy and have been allowed to estimate their own ability to raise hogs. They have taken the initiative to readjust the lopsided development of the hog-raising industry, and the trend of a decrease in the number of hogs has occurred in some places.

Second, the fact that many different industries are flourishing has harmed the hog-raising industry. Before the 3d Plenum of the 11th CPC Central Committee, except for raising hogs, sheep and fowl, all other peasant household sideline industries were prohibited. After the Third Plenum, peasant household sideline industries began to thrive, and many peasant households used their excess grain to raise livestock. Hog raising was especially harmed in places where there was a healthy development of cash crops and other sideline industries. In Fugou County of Zhoukou Prefecture, the output of cotton grew from a few million jin before 1977 to more than 90 million jin in 1983. This amounted to 180 jin per person, and each person netted from cotton alone an average income of 360 yuan. During the same period the number of livestock doubled, and forestry industries and other sideline industries developed considerably. Hog raising yields small profits and is not considered to be essential. The number of hogs decreased from more than 100,000 to no more than 20,000.

Third, the income from raising hogs is not high. The people have a common saying that goes: "poor men raise hogs, wealthy men raise cattle." This means that there is little profit from raising cattle, though there is little capital invested. Therefore, raising hogs is generally a sideline industry of peasant households and prefectures with unfavorable economic conditions. Once peasants become wealthy, they think about engaging in a few sideline industries that yield big profits. Furthermore, the state purchases hogs at a price of 0.6-0.7 yuan per jin. Yet for a hog to grow 1 jin requires 5 jin of mixed feed, of which 4 jin must be choice feed. If the household has no dregs left over from such sideline industries as ground powder and bean curd, and if it relies only upon grain to feed hogs, the profits will be quite small. Further, some

places have canceled incentives of grain and chemical fertilizer for raising hogs or do not give cash, and this has dampened the enthusiasm of the masses for raising hogs.

How To Deal With the Problem of the Current Decrease in the Number of Hogs

On the surface, it seems that the decrease in the number of hogs is a bad thing, but in fact this is not correct. Because the main goal of raising hogs is to produce meat, the measure used to evaluate the relative merit of hog breeding is the amount of pork produced and not the total number of hogs raised. For example, in the past few years, each hog in China has produced a little more than 40 jin of pork, which is much lower than the world average of 130 jin per hog. That is to say that the amount of meat from a foreign hog is still greater than the amount of meat from a few of our hogs. Before 1957, more than 80 percent of the big porkers in Henan Province were removed from inventory, and after 1974 the number decreased to approximately 40 percent. Two hogs after 1974 were equal to one hog before 1957. In the past few years, although the number of hogs has decreased greatly, yet because of the increase of the production of grain in the countryside, because farmers were raising hogs according to their strengths and because there has been a decrease in the number of hogs dying from sickness, the number of penned-up big porkers removed from inventory has increased, the production of pork has not decreased and therefore the supply of pork to the market has been guaranteed. For instance, from 1976 to 1978 in Zhoukou Prefecture, there were 1.66 million to 1.78 million hogs and 470,000 to 570,000 big porkers were removed from inventory each year. Although the number of hogs in the past 2 years has decreased to 900,000, the number of big porkers removed from inventory has increased to more than 600,000. Moreover, the hogs are grown larger than before and the amount of pork produced has grown. Thus, even though the decrease in the number of hogs has caused people to worry about an insufficient supply of meat, yet during the past two spring festivals, not only has there been no shortage, on some occasions the price of pork on the free market has been lower than the state price. (During the spring festival of this year and last year, the price of private pork was 0.9 yuan to 1 yuan and the state price was 1.05 yuan.)

Thus, although the number of hogs was greater in the past, yet because there was insufficient feed, many hogs were raised and many died, or they either did not grow or grew very slowly. According to an investigation, in many communes in the past, nearly one hog per household died each year. Further, it takes 18 months or more to raise a big porker, and this causes a great waste of human and material resources. Currently, the number of hogs who die from illness has greatly decreased and it takes only 9 months to raise a big porker. Thus, there must be an objective analysis concerning the reduction of the number of big porkers.

A Way To Resolve Future Problems With the Supply of Meat

Although the number of hogs is not an important indication in determining the merits of raising hogs, we must nevertheless maintain a definite number of hogs in order to be able to maintain a certain capability to produce meat. Otherwise, even with an increase in the number of big porkers removed from inventory, too large a decrease in the number of hogs will make it difficult to

ensure a supply of meat to the market. Thus, based on the needs of society, at the same time that we are striving to raise the number of hogs removed from inventory, we must also ensure a certain number of hogs. For this reason we must depend on the power of policy and science.

Since markets were opened up, we have carried out a two-edged policy--one for individuals and the other for the state--for the butchering of hogs. Individual butchers readjust the purchase price of hogs based on the number of sources of hogs from the countryside, thereby playing a role in consumption and production. For example, after Zhoukou Prefecture restored individual butchers in 1983, the number of hogs started to rise again. Because the market purchase price for hogs is 0.8-0.9 yuan per jin, which is 0.2-0.3 yuan per jin higher than the state price, the hog farmers can earn 0.2-0.3 yuan per jin. Each 200-jin porker can yield a profit of 50 to 80 yuan. Under the circumstances of abundant and inexpensive grain, the farmers can take the initiative in developing hog raising. The state must pay attention to the role of butchers and must provide guidance in such areas as pricing policy. They can thus ensure the broad masses of peasants with a supply of meat on the market.

Currently, the Most Prominent Problem Is How To Guarantee a Supply of Meat to the Urban Population

Before the 3d Plenum of the 11th CPC Central Committee, there was only the state-run side of the question, and the 3d Plenum added the individual side. This latter side uses prices that are higher than those of the state to contend for hogs and thus creates a situation whereby the state is unable to obtain hogs. In order to solve this contradiction, the income that hog farmers receive from the state for selling hogs must be higher, or at the very least should not be lower, than the income that they receive from the individual butchers. For this reason, many localities adopt such methods as centralized purchasing and rewards for sales as well as state subsidies. We feel that from the viewpoint of the purchase price for hogs and the price parity of grain that is determined by the state, the reason that the price of pork is not considered too low is because farmers are not competent in the management of hog raising and this leads to low profits. One of the main reasons for this is that the amount of grain invested is high and the amount of pork that is yielded is low.

We know that 3 jin of mixed feed in exchange for 1 jin of hog is a good level for raising hogs. Currently, approximately 5 jin of mixed feed is required in the countryside in exchange for 1 jin of hog. An important reason for the low payoff of feed is that the protein content is insufficient. Experience has proven that the protein content of hog feed must be above 16 percent, yet the protein content of hog feed is currently only 5-8 percent. Furthermore, an insufficient lysine content in protein has affected the use value of the protein content. Yet the protein from abundant rice-dreg cakes, leaves and industrial sideline products in the countryside has not yet been utilized. If the state takes the funds it uses to reward and subsidize hogs and establishes a number of feed-processing plants, and if it takes up a number of price parities for grain as well as such compound feeds as husks, stalks and rice-dreg cakes, it can reduce the ratio of grain to meat from 5:1 to 3:1, and feed prices can decrease by 40 percent. According to preliminary calculations, the

cost for this type of feed can be kept under 0.13 yuan per jin. Fugou County tested this compound feed in key farms, where 2.9 jin of feed produces 1 jin of hog and the cost of each jin of feed is no more than 0.13 yuan. Thus, in accordance with the state purchase price, each jin can yield a profit of 0.25 to 0.3 yuan. A 200-jin hog can yield a profit of 50-60 yuan. A specialized household that sells 100 porkers can earn 5,000-6,000 yuan in pure income. The full-price feed of feed plants is sold to specialized households using a fixed price, and the products of specialized households must be sold to the state according to the state's list price. In a city with a population of 100,000 in which each person consumes an average of 20 jin of meat per year, approximately 15,000 hogs are required, and 150 specialized hog farmers are sufficient to supply the city with meat. For this reason, the feed industry can also develop and be strengthened.

For example, the broad masses of peasants are mainly dependent on individuals for their supply of pork, and the supply of meat to urban dwellers must then be resolved by specialized households that manage advanced and scientific feed-processing plants. There will be a new transition in our hog-raising industry, and possibly this can be a path to the healthy development of hog raising that suits our national conditions.

Currently, in order to solve the problem of the supply of pork to the city, we propose the adoption of a few temporary methods. For example, 3 jin of parity grain should be rewarded for every jin of hog sold to the states, and we can also adopt rewards of a certain amount of grain for the sale of big porkers weighing more than 150 jin.

No matter what path of development we take for raising hogs, it must promote advanced science and technology and so raise the number of porkers removed from inventory and the ratio of meat on the hogs.

Therefore, I feel that maintaining a definite number of hogs and stressing the ratio of the pork produced must be the main direction of attack for developing hog raising. In addition, adopting the two-sided policy is possibly a good method under present national conditions for adjusting the balance between the supply and demand of pork.

12437
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AUTHORITIES ON SUMMER GRAIN PROCUREMENT WORK

Beijing LIAOWANG /OUTLOOK/ in Chinese No 26, 25 Jun 84 pp 15-17

/Article by Song Jishui /L345 0679 3055/ and Ling Wancheng /0109 1346 2052/:
"What Do We Do After This Year's Summer Grain Harvest?"

/Text/ At present, most of the vast countryside of China, from north to south is now entering the busy season of harvesting the summer grain, and most areas in the south have already completed the harvest.

This year, China's summer wheat-producing areas have met with various natural disasters. Last fall there was an unbroken spell of wet weather in the main wheat-producing areas of the Huanghe and Huaihe Valleys, and the sowing period was postponed half a month; this spring was cold and dry, with very little rain, resulting in large areas where sprouts failed to develop. Yet because of the further stability and perfection of the responsibility system tying pay to production, and particularly since the issuance of this year's Central Committee Document No 1, the rural cadres and masses everywhere strenuously exerted themselves and conquered natural disasters, making a gratifying summer grain production situation--one vast scene of a bumper harvest.

In recent years, the speed of development of China's grain production has exceeded expectations, and there has been a fairly broad increase in both the total national output and the commodity rate. It is important to have more grain, but at the same time, the increase also presents a series of new problems requiring a timely resolution. For this reason, we visited Vice Minister Ji Ming /1323 6900/ of the Ministry of Commerce and asked him to answer the following questions.

/Question/ Have there been any changes in this year's summer grain procurement policy, and what concrete regulations are there?

/Answer/ There has been no change in the summer grain procurement policy. A circular recently issued by the State Council pointed out that this year's grain purchases by the state--grain delivered to the state and state monopoly procurement grain (that is, the base amount of state grain purchase--must have a guaranteed completion date and that local areas may make arrangements for the part that is above the purchase task. Once peasants have completed the state grain purchase task for summer grain, those who request to sell more grain to

the state should have their grain purchased at the above-quota purchase price and not be refused, provided that the grain quality meets standards. Forty percent of the rapeseed sold to the state by the peasants should be at the parity price and 60 percent should be bought at the overpurchase price, and we should also announce to the peasants that next year we will continue to carry out this policy.

/Question/ In recent years there has been a widespread problem of "difficulty in selling" among peasants. In its restructuring, how is the Ministry of Commerce going to solve these problems and handle this year's summer grain purchase work?

/Answer/ In the past few years, China has had successive years of bumper crops in grain production, and for successive years, the state purchase and above-quota purchase plans for grain have been overfulfilled. Under these circumstances, we have had difficulties in selling grain, storing grain and transporting grain and it seemed that there was an incredible amount of grain. This is really a false impression. Now there really is considerably more grain production in China than there was in the past, but when viewed from the per-capita average for China, it is not really a lot. In 1983, the national per-capita amount was only 760 jin, and there is still a very large gap between this figure and that of certain economically developed countries. It cannot even be considered high when compared to many underdeveloped countries. And seen from the viewpoint of developing the food and feed industries, China's grain production is not a lot but rather is insufficient. At present, the reason that there appears to be quite a lot of grain is primarily because it is controlled by such factors as the purchase and marketing prices being reversed, management facilities being inadequate and the availability of transportation being tight, added to which we have not been very good at doing business, have not invigorated circulation and have not met the requirements for developing the situation.

To solve the problem of peasants having difficulty in selling, we must first relax our policies this year. When grain starts to go on the market, and at the same time that the state opens up the market for purchases, we must implement multichannel management and the amount over the purchase task should be handled locally according to actual local conditions. The state, collectives and individuals may all transport grain for sale, may enter cities and may leave the county or province. There are quite a few advantages in this. For example, last year in Sichuan's Naijiang County, Huamiao Village in Gujia Township had 314 peasant households that used bicycles, tractors and other means of transportation for long-distance transport and sale of over 700,000 jin of wheat, corn, barley and other grains, which were equivalent to over two-thirds of the total state purchases that year by the local grain station. This not only invigorated the grain market but also reduced the pressure on state transportation.

Second, we must make every possible effort to overcome the difficulty of inadequate storage, and we must strive to store this summer's state grain purchases in the localities. All local grain departments must get a good handle on grain storage construction in accordance with the national storage construction plan and must also tap hidden potential, clear out and combine storage

areas, manage rationally and use open-air storage and other methods and do everything possible to expand storage capacity. We may also pay part of the price to the peasants in advance, taking the grain into storage at a later date. At the same time, we must organize the strength of all sectors and develop substitute purchase service stations and substitute storage service stations and households specializing in grain storage and, in a planned way, develop the work of "people storing grain for the state." Actually, some places have already begun this work. Last year, Jilin Province organized peasants to store over 4 billion jin of grain for the state (that is, people storing for the state). As far as the developmental trend is concerned, grain production can still increase, the grain commodity rate can get higher and higher and the problem of relying solely on state investment in new construction projects to solve inadequate storage will not appear. Therefore, we suggest that the state, the collectives and individuals all adopt multiple methods for raising funds and build storehouses and storage grounds according to the principle that whoever builds it is the one to manage it and the one to receive the benefits. This work must definitely be taken as a major task and given technical guidance and aid. Following the principles of storing grain safely and amassing it with a rational flow and convenient control, we must plan well, set up the necessary regulatory system, determine reasonable compensation for storing for the state and managing for the state, constantly sum up our experience and gradually go the sole route of organizing peasants to store and manage grain for the state.

Third, we must actively develop markets and expand the sale of negotiated-price grain. The State Council has given its approval to the idea that the state take off a part of the standard grain from the overpurchase grain (with the central finance authorities taking responsibility for the added costs of the overpurchase grain) to expand negotiated-price sales. This would constitute major support by the national financial authorities for grain work.

/Question/ What is the situation in the construction of production bases for China's commodity grain? And what are the prospects for development?

/Answer/ China now has commodity grain production bases in 60 counties (cities, banners) in 11 provinces, and these were built on the original foundation of commodity grain production bases in 50 counties (cities, banners) in 8 provinces at the end of 1983.

In 1982, China adopted the method of linking state investment with the practice of locally turning in commodity grain to the state and set up commodity grain production bases in 50 counties (cities, banners) in 8 provinces. Through over a year of effort, the total grain output of these commodity grain production bases was 54.6 billion jin in 1983, or 7 percent of the total grain output of the whole nation, an increase of 8.2 billion jin or 18 percent over the previous year. This greatly surpassed the national rate of growth. There were 23.7 billion jin of grain turned into the state (requisitioned and at the overpurchase or negotiated price), which was one-eighth of the total amount of requisitioned, overpurchase price and negotiated-price grain in the entire country and whose commodity rate reached 43 percent; the total output value for agriculture, animal husbandry, sideline occupations and fishery grew 22 percent over the previous year, which was much greater than the national growth rate of 5 percent.

China's construction of commodity grain production bases is still in the experimental stage. From now on, we must start from market needs as we develop commodity grain production bases and change the past way of doing things which solely stressed the amount of grain and the raising of the commodity rate. We must pay attention to improving the variety and quality of grain and must also take into consideration the construction of facilities for preproduction and postproduction, energetically developing the food industries and the feed-processing industries in the commodity grain bases and other problems. To sum up, we must give full play to the overall production potential of these areas, producing locally, processing locally and managing locally.

/Question/ What is the meaning of the change by the nation's grain departments from control to management, and what measures will they take in the future to promote the food industries and the feed industries that are related to grain?

/Answer/ For a very long time, the primary task of our grain departments was to do monopoly purchasing and monopoly marketing and to assign plans. Under conditions where grain was in short supply, this played a major role in settling the lives of the people, stabilizing market prices and guaranteeing basic needs in various areas of economic construction. From now on, and for a fairly long time to come, we will still continue to maintain the policy of monopoly purchasing and monopoly marketing, maintain the principle of a planned economy as primary with market regulation as secondary and conscientiously guarantee the grain requirements of various sectors. But along with the developing situation, the scope and methods of monopoly purchasing and marketing must undergo appropriate adjustments. Now we must change directions from stressing "monopoly" and "control" to "relaxing" and "invigorating," that is, we must further relax policies, develop markets, expand consumption and invigorate management.

Successive years of broadly increased grain production and of increased commodity amounts have provided the material base for developing a food industry and a feed industry. Doing a good job in production management for food and feed is an extremely important area for grain department work in changing direction from control to management. They have already attained heartening accomplishments in the past few years through the enthusiastic development of food-processing management for grain. Currently, the amount of grain food that is managed nationally is 6 billion jin, or one-tenth of the amount of grain supplied to the entire nation's urban population. And yet this far from meets the need. From here on out, all levels of grain departments must actively develop the production and management of foods, staple foods and prepared foods made with flour, soybeans and oil, etc.; do a good job with precision processing and thoroughgoing processing; expand the supply of processed rice and processed flour and of top-grade, specialty edible oil; and do everything possible to satisfy the various food requirements of urban and rural dwellers. Some places have tentative plans for gradually changing the supply of grain to the cities and towns to the supply of food products, taking the raw grain supplies by the countryside and gradually changing it into a supply of finished grain or foodstuffs, changing the supply of feed grain into a supply of mixed (compound) feed. This developmental direction should be affirmed. Now we must mobilize grain departments at all levels to get to work. Not only should large and middle-size cities energetically build up enterprises, but

county seats and market towns should also build up enterprises. In addition to the state continuing to construct some modernized food plants and carrying out factory production, from here on out, newly-constructed, renovated or expanded grain shops, regardless of scale or size of distribution, must fully consider the needs of food production and management. Grain shops can involve themselves more in investing the amount required for grain shops between the plant and the shop, in obtaining quick results, in invigorating management, in obtaining fresher products, in marketing to suit people's needs and in making things convenient for the masses.

China's feed industry started rather late, in 1979, to construct feed-processing plants. By 1983, the production capacity of the entire Ministry of Commerce system was only a little over 4.5 million tons. This far from meets the needs for developing rural commodity production. The south uses husked rice to raise domestic fowl and the north uses corn to feed draught animals. This is a lot of waste and has few benefits. If we were to use these and other raw materials to make mixed (compound) feed, the benefits of the feed could be raised by more than 20 percent. Further, people's demands for raising the consumption level of foodstuffs are becoming more and more pressing. This requires faster development of the feed industry in order to supply the cities with even more meat, fish eggs, milk, poultry and other foods. From now on, state investment in developing the feed industry will concentrate on rather large-scale feed-processing enterprises and will also pay attention to the further development of advanced technology (including the use of foreign investment and important equipment and technology) to produce high-quality foods, raise food quality and increase the variety of products. At the same time, we must help rural and town enterprises develop feed industries by supplying processing machines and developing technical services. This year, the entire nation plans to produce 8.42 million tons of mixed (compound) feed, and of this amount, the grain departments will be responsible for 6 million tons and struggle to complete 7.5 million tons, thus supply more and better feed for the development of the animal rearing industry.

12452

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REPORT ON CONTROLLING COTTON PRODUCTION

HK170630 Beijing JINGJI RIBAO in Chinese 6 Dec 84 pp 1, 3

[Article by Li Zhisheng [2621 2535 4141]: "The Necessity of Controlling Cotton Production"]

[Text] It Is Imperative To Keep Production Under Control

Keeping cotton production under control is determined by the objective situation and trend arising from the tremendous development of cotton production. Cotton output throughout the country was 26.07 million tan [as printed] in 1952, reached 41.95 million tan in 1965, and generally remained at a level of more than 40 million tan before 1979. It could not meet the needs of the masses of people. Therefore, in an effort to ensure the basic needs of the people for clothing, in addition to exercising a state monopoly for the purchase, marketing, and rationing of cotton textiles and cotton, the state also imported a certain quantity of cotton every year to meet domestic needs. Since the 3d Plenary Session of the 11th CPC Central Committee (including the implementation of the system of contracted responsibilities with payment linked to output, a great increase in the purchasing price of cotton, and the implementation of other policies of rewards and encouragement), cotton output has increased year after year. In 1983 we planted 91 million mu of cotton, with a total cotton output of more than 90 million tan. In this way, fundamental changes have taken place in the production and marketing situation of cotton in our country, that is, the previous situation of relying on imports to maintain a balance between supply and demand has changed into one of having sufficient cotton and some to spare. A situation of supply exceeding demand has begun to emerge. Undoubtedly, this is a good phenomenon. The problem is that the cottonfields in northern China are still tending to expand. The area sown to cotton throughout the country has increased by 11 million mu this year over last year and cotton output is estimated at 118 million tan. According to a survey, the peasants in some localities are still planning to grow more cotton. If this trend is left unchecked, the situation of cotton supply exceeding demand will become more serious, thus landing us in a passive position in economic work. On the one hand, it will cause an intolerable burden on state finances; on the other, unmarketable cotton will result in the loss of income for cotton growers and finally lead to a drastic halt in cotton production, thus infringing upon the long-term interests of cotton growers.

It Is Necessary To Clarify Some Ideas

1. Some people hold that given a population of 1 billion and an annual cotton output of 100 million tan, China's per-capita output of cotton is 10 jin. Our level of cotton consumption cannot be regarded as high. Therefore, our country does not have a surplus but a deficiency of cotton. The question now is not one of keeping production under proper control but one of vigorously developing production. This view is open to question. First, the present level of per-capita fiber consumption in our country cannot be regarded as very low. Our country has come close to the world level of per-capita fiber consumption, which is 14 jin. Second, the criterion determining whether there is a surplus or a deficiency of products depends not only on the amount of goods possessed by the people on a per-capita basis but also on the purchasing power of the consumers. Judging from the amount of goods possessed by the people on a per-capita basis, our country hardly has a surplus of any products. However, judging from the purchasing power and from the demand of those having means of payment, the supply of some products has certainly exceeded demand. A case in point is cotton.

Due to the fundamental changes in cotton production, the state has stopped importing cotton. In addition to this, the state has also changed the state monopoly for the purchase and marketing of cotton, abolished cloth coupons, and supplied cotton and cloth without restrictions. However, with the restriction of the general consumption level and with the effect of changes in the entire textile production and consumption pattern, the sales volume of cotton products has not increased but has dropped. According to some statistics, the sales volume of 100 percent cotton cloth dropped by 24 percent in 1983 over 1980 and it again dropped by some 30 percent in January-September this year over the corresponding period last year. On the other hand, the sales volume of chemical fiber cloth increased by more than 30 percent in 1983 over 1980. Meanwhile, the sales volume of various high-grade textile, such as wool fabric, silks, and satins, has also markedly increased. In 1983 people purchased an average of 0.31 meter of wool fabric, an increase of 35.3 percent over 1982, and 0.45 meter of silks or satins, an increase of 4.7 percent over 1980. The increase in the sales volume of chemical fiber textiles, wool fabric, silks, and satins will inevitably reduce the sales of 100 percent cotton fabric. In recent years, with the development of industrial and agricultural production, the income of the urban and rural people has markedly increased and their purchasing power has greatly increased. Generally speaking, people's expenditures on food, clothing, shelter, and daily necessities have increased but the proportion of clothing expenses has remained basically stable, without any great changes. Take the workers and staff members in the cities for example. The proportion of their clothing expenses out of total living expenses was 13.6 percent in 1978, 14.4 percent in 1982, and 14.5 percent in 1983. Changes in the consumption pattern of peasants are generally similar to those of the workers and staff members in the cities. The proportion of their clothing expenses has even tended to drop. In the past, the proportion of the peasants' food and clothing expenses remained at around 80 percent for a long time and the proportion of their expenses on shelter and daily necessities was around 10 percent. In 1982, the former dropped to 71.7 percent while the latter rose to 20.5 percent. This shows that the higher the income of the peasants, the smaller the proportion of their food and clothing expenditure. When analyzing the sales trends of cotton fabric and even chemical fiber fabric, we should take into consideration the actual consumption condition of the masses of people, including changes in their consumption habits, levels, and patterns.

2. Now that we have a surplus of cotton on the domestic market, can we not export it? Of course we can. However, our country has always been a cotton importing country. It is not easy to switch from imports into exports, particularly to exporting in large quantities. First, the international trade volume of cotton is limited (it should also be pointed out here that internationally the consumption of chemical fiber fabrics is also affecting that of cotton fabric). In 1983 the trade volume of cotton on the international market was about 4 million tons (or about 80 million tan). The main exporting countries are the United States, the Soviet Union, and Pakistan, and the main importing countries are Japan and some European countries. The trade exchanges between various countries are formed by numerous factors. As a new cotton exporting country, China must create conditions for establishing cotton trade relations. And this takes time. Second, as is the case in the export of other products, we have to make numerous preparations in the country for the export of cotton, such as improving varieties, reforming packaging, adapting transport and port facilities to the new situation, and so on. Naturally, if we carry out our preparatory work satisfactorily, we can export cotton at an earlier date and in a larger quantity. However, it is absolutely impossible to export cotton at the time and quantity we want. In short, cotton production must be suited to export possibilities. If we blindly develop cotton production without taking the export possibilities into consideration, it will be impossible for us to attain better economic results.

3. Other comrades have said that we should not set our eyes only on the financial subsidy given by the state in the purchase of cotton but should also see that the state derives greater income from the processing and marketing of cotton. All things considered, it is still beneficial to the state. Therefore, developing cotton production constitutes a major source of state financial income. This argument seems reasonable, but actually it is not. Let us leave aside for the moment the question of whether the state makes profits or sustains losses in the entire process of cotton, from growing, processing, and marketing, which is very complicated. Even if the state does make some profits, there must be a precondition, that is, the final products must be marketable. If the final products are unmarketable and have to be kept long in stock, it will certainly not pay in the final analysis. The current actual situation in the state operation of cotton is: 1) We purchase it at a high price (referring to the average purchasing price calculated from the list price and the increased price) and sell it at a low price. The difference between the purchasing and the selling price is borne by the state. This burden has a direct bearing on the current state financial deficit; 2) on the current domestic market, the output of cotton fabric is larger than the sales. In recent years cotton output has increased by tens of millions of tan annually. The purchase volume of cotton increased by 15 million tan in 1982 over 1983 and it is estimated to increase by another 20 million tan in 1984 over 1983. The state has to pay 2 billion yuan, including the interest paid to the banks, for the extra purchase of 10 million tan of cotton. If we let cotton production run its course without keeping it under proper control, the state funds lying idle will continue to increase, and this represents an unbearable burden to the state finance; and 3) with increased cotton production, the state has to throw in more currency for the operation of cotton. On the other hand, because the supply of cotton fabric exceeds demand, we cannot enter new cotton products onto the market to withdraw currency from

circulation. What is worse, we cannot remedy this situation with other products. This makes it impossible for us to withdraw a certain portion of currency from the market. And this portion will increase with the increase of cotton output, which will result in the growing contradiction between the feasibility of commodity supply and the market purchasing power.

Some comrades hold that keeping cotton production under control will dampen the initiative of the peasants and infringe upon their interests. We should make a concrete analysis of this question. Since the 3d Plenary Session of the 11th CPC Central Committee, we have adopted two major measures to arouse the enthusiasm of the peasants for cotton production. One is the implementation of the system of contracted responsibilities with payment linked to output, and another is the raising of the purchasing price for cotton. Undoubtedly, these two measures are necessary and correct. The first measure, in particular, will remain unchanged for a long time to come. The second measure, however, can and should be changed according to the situation in production and sales. Price is an economic lever. If less products have caused supply to fall short of demand, it is necessary to raise prices in order to stimulate production; if more products have caused supply to exceed demand, it is necessary to reduce prices in order to check production. The law of value calls for the application of price to regulate production and sales. People can only adapt themselves to and not violate this law. In the past, due to the lack of understanding of, and respect for the law of value, we handled many things in violation of this law. We neither raised the prices of some products which should have been raised nor reduced the prices of some products which should have been reduced, thus landing ourselves in a passive position and coming to grief. Now, we have summed up our experiences and lessons and had a deeper understanding of the law of value. The price of cotton is more than 100 percent higher than the cost needed for the production of grain. As a result, the peasants have been continuously reducing the grain-growing areas and expanding the cotton-growing areas. And the supply of cotton products has exceeded demand. Under these circumstances, we should adopt measures to curb production. From a short-term point of view, growing less cotton will reduce somewhat the income of the peasants. However, from a long-term point of view, this is necessary for stabilizing cotton production and protecting the long-term interests of the peasants. For this reason, we should not say that keeping cotton production under control will dampen the enthusiasm of peasants for production and infringe upon their interests.

5. Still other comrades hold that cotton fabric has its own merits which cannot be replaced by chemical fiber fabrics. Therefore, with increased cotton production, the problem lies chiefly in how to expand the sales of cotton fabric and not to keep cotton production under control. This view is reasonable in some respects but is not comprehensive. Originating from the farming industry, cotton fabric belongs to the category of natural products. Its principal merit lies in its strong ability to absorb water and its good ventilation while its shortcomings lies in its poor durability and its plainness. Originating from the industry, chemical fiber fabrics belongs to the category of artificial products. Its principal merit lies in its durability and beauty. For a long time in the past people depended on such natural products as silk, hemp, and cotton for their clothing. In the history of our country the order of people's basic necessities of life was arranged as follows: clothing, food, shelter, transportation, with clothing placed first. The basis for such an arrangement is

that it was more difficult for people to obtain clothing than food. From the production of silk and hemp to fabric, clothing involves a long process and complicated techniques. Producing food, however, was relatively easier (at first people got their food from hunting, fishing, and gathering and later they engaged in grain growing and livestock breeding). However, since the emergence of chemical fiber products in modern times, great changes have taken place in the history of people relying on natural products for their clothing. Chemical fiber fabrics have become an important component part of people's clothing. This change has been brought about by scientific and technological progress and is the result of man conquering nature. Viewed from future development trends, the proportion of chemical fiber fabrics in the total fiber fabric will become larger while that of cotton fabric will become smaller. When studying the question of cotton production in our country, we should take this into account, make a scientific forecast of the consumption trends of cotton fabric, and carry out planned production according to the forecast.

What measures we should adopt in order to keep cotton production under control is a big issue. I think we should adopt not only economic but also administrative means; not only keep cotton production under control but also improve its quality; not only expand its sales on the domestic market but also find sales for it on the international market; not only carry out planned guidance but also make use of regulation by market mechanisms; and not only reach a common ideological understanding but also solve practical problems. In short, it is necessary to consider the question of cotton production in our country from the high plane of economic strategy and to tackle it in a comprehensive way.

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XINHUA COMMENTATOR ON RURAL ECONOMIC READJUSTMENT

OW270056 Beijing XINHUA Domestic Service in Chinese 0058 GMT 23 Dec 84

["XINHUA Commentator's Article: Readjustment, Transformation, and Flexibility--After Each Person in the Country Has an Average of 800 Jin of Grain"--XINHUA headline]

[Excerpts] Beijing, 23 Dec (XINHUA)--As the end of the year approaches, good news has been pouring in from all parts of the motherland--China's total grain output for 1984 has exceeded 800 billion jin. If a calculation is made on the basis of China's 1 billion population, each person in the country has an average of 800 jin of grain. This is the first time China has caught up with the world average. It signifies that gone are the days when the 1 billion Chinese people need to work very hard in order to have enough to eat. They will soon enter the stage of seeking better food.

When the per-capita share of grain reaches 800 jin, the nation is also faced with difficult new problems, such as rising consumer demands and an ineffective management system. There could be a temporary grain "surplus." All this indicates that we lack the ability to handle the production of marketable grain on a large scale.

Therefore, there should be a strategic change in our rural work when our per-capita grain output reaches 800 jin. From 1985, the focus of China's rural work will be on the readjustment of rural industrial set-ups, while continually reforming the economic system. The new problems which have currently emerged in the countryside are, in the last analysis, attributable to the fact that our agricultural patterns are still irrational, that the relations between various departments are still unharmonious, and that our agricultural production is still out of line, to a certain extent, with market and social demands.

The measures to solve the problem of irrational industrial set-ups are "readjustment," "transformation" and "flexibility." So-called "readjustment" means the readjustment of the distribution of productive forces in agriculture, forestry, animal husbandry, sideline production, and fishery. First of all, it is necessary to determine our crop pattern, according to natural and economic laws, while taking into consideration the natural and transportation conditions.

"Transformation" means to transform grain into meat, poultry, eggs, milk, and other food products. It also means to turn concentrated farm manpower to serve village and township enterprises, and tertiary industry.

Currently, animal husbandry is a weak link in agricultural production. Pastoral production lags far behind the rising need. Therefore, we must take this opportunity of keeping an ample supply of grain to vigorously develop our fodder industry, create a new situation in animal husbandry, satisfy the people's needs in animal produce, provide the people in rural and urban areas with more meat, poultry, eggs, and milk products, and help people change their diet and build up their physique.

"Flexibility" means to change the corrupt practice of subjecting farm products to unified state purchases and marketing at unrealistic prices, and with production completely out of line with need. It means to replace such corrupt practices with that of acting according to the law of value, by allowing flexibility in the farm produce market, ensuring market regulation, and permitting peasants to carry out production according to market demands. Now, people are happy to see the following signs: Recently, some districts have already changed the practices of subjecting farm products to unified, or fixed, state purchases and marketing into that of carrying out planned purchases on order, or purchasing and marketing certain farm products at negotiated prices. A direct link has been established between the producer and the seller. Peasants feel free to sell their farm produce on the market. Business is being conducted through various channels. The prices of products vary on the basis of quality and market demand. All this has stimulated production and sales. Commodity prices remain stable, and the prices of some products are even lower. There is brisk buying and selling on the market. Both peasants and city dwellers are joyful. We should use market regulation as a mechanism to readjust prices, and as a guide, economic lever, and important means to regulate agricultural production. At the same time, we must duly reform the rules and regulations, and those systems which have failed to keep abreast of the current situation. We would gain the initiative, if we were able to seize the opportunity to actively carry out reforms. Otherwise, we would be thrown into passivity, if we missed this opportunity. This would be an irresistible, historical trend.

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YANG ZHONG ON FURTHER RELAXING FORESTRY POLICY

OW200829 Beijing XINHUA Domestic Service in Chinese 0757 GMT 19 Dec 84

[Article by ZHONGGUO NONGMIN BAO reporter Zhang Xiaou and XINHUA reporter Huang Zhenggen]

[Excerpts] Beijing, 19 Dec (XINHUA)--In order to cope with the new situation arising from the restructuring of the national economy, with the focus on the urban economy, formulated by the 3d Plenary Session of the 12th CPC Central Committee and to contribute more to the modernization drive, the national afforestation program, and the prosperity of rural areas, the Forestry Ministry recently called a national forestry propaganda work meeting in Beijing, stressing the importance of further relaxing the forestry policy to invigorate the economy of forest regions.

Speaking at the meeting, Minister of Forestry Yang Zhong suggested the following five measures for accelerating the forestry reform:

-- Due to the long production cycle and slow process of obtaining economic results in forestry production, there will be an even greater disparity in the income between forestry workers and workers of other trades after the rural economy is activated. In view of this new situation, it is necessary to give preferential treatment in investment and distribution to individuals who have contracted forest land from collectives.

-- Lumber produced by collectively-owned forest regions that are relieved of the unified procurement task should be sold freely at negotiated prices according to market needs. Local governments and departments should not purchase the lumber in a disguised form under the unified procurement plan or at low prices under other pretexts in violation of the legitimate interests of the people.

-- To unclog the circulation channels for forestry products, all localities must, after fulfilling the state unified procurement task and the quota assigned by the state, open up the market for products that forestry farmers can sell on their own. Local governments must not control the market which higher authorities have approved. It is necessary to open the bamboo and lumber markets in forest regions and their neighboring counties in a guided and orderly manner.

-- All of the approximately 4,000 state forestry farms and 170,000 cooperative forestry farms in the country must strive to change their unitary production setup, improve their economic effectiveness, and instill vigor and vitality into their operations. It is necessary to practice diversified management with the focus on forestry production and transform the closed operations of merely producing products to the open commodity production. It is necessary to make full use of each farm's own advantages and resources in vigorously developing new fields of production, such as crop growing, agriculture, fishing, processing, mining, hunting, tourism, and transport.

-- There are over 30 million mu of hillside fields with a slope of 25 degrees or more in the country that should be reverted to forest land. It is necessary to speed up the pace of reverting the farmland to forest land to overcome the serious consequences caused by the destruction of forests to develop farms.

Minister Yang Zhong said: China's forestry has been undergoing a historic reform and the situation is excellent. Leaders at various levels and the masses of people have attached great importance to the strategic position of forestry. The tide for making the motherland green has risen in cities, towns, and villages, as well as among various trades and professions. Nearly 100 million mu of land have been afforested since the beginning of this year. Households and associations specializing in forestry, totalling 4 million, have set good examples and accumulated useful experience for scientific management of forestry and promotion of specialization and commercialization of forestry. As long as we follow the guidelines of the 3d Plenary Session of the 12th CPC Central Committee in conscientiously summing up both positive and negative experiences in forestry production and construction, especially the successful experience in forestry reform in the past few years, continue to eliminate the "leftist" influence, and make determined efforts at reform and innovation, we will definitely find a distinctively Chinese way of developing forestry.

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1983 PRC STATE FARM PRODUCTION REVEALED

Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION IN CHINA] in Chinese No 5, 24 May 84 pp 3-4

[Article by the Planning Section of the State Farm and Land Reclamation Bureau: "A Survey of Production and Construction in State Farms and Land Reclamation Throughout the Country in 1983"]

[Text] Inspired by the spirit of the 12th Congress of the CPC, workers and staff members of the state farm and land reclamation system have made positive efforts to create a new situation in attaining the important task of quadrupling the nation's gross annual value of industrial and agricultural production by the turn of the century. In 1983 the state farm and land reclamation departments in various localities carried out all-round enterprise consolidation, readjusted the economic structure and the distribution of production in line with local conditions, further perfected the economic responsibility system, ran family farms on a trial basis, developed diversified undertakings, upheld the orientation of combined agricultural-industrial-commercial operations, vigorously elevated the scientific and technical levels, improved the level of management and succeeded in raising economic results. The total value of industrial and agricultural production, profits and the output of grain, cotton, rubber, tea, fruits, milk, electricity, coal, sugar and paper all surpassed the previous record. Various major targets fulfilled in 1983 were:

(1) Enterprises

Enterprises of various types under the state farm and land reclamation system totaled 2,592, including 2,070 farms and 268 industrial enterprises with independent accounting units.

(2) Population and Workers and Staff

The total population of the state farm and land reclamation system was 11.587 million, an increase of 0.59 percent over the previous year, of which the population of the farms, communes, brigades and teams totaled 10.817 million. In 1983, 120,700 people were born and 40,700 died. The natural growth rate of the population was 8.2 percent, a drop of 3.4 percent over the previous year.

The number of workers and staff members in the state farm and land reclamation system was 5,017,800, an increase of 73,000 over the previous year,

of whom 4,627,600 were farm workers and staff members, 155,000 were workers and staff members of industrial enterprises, 14,400 were workers and staff members of the transportation and the communications, posts and telecommunications departments and 27,600 were workers and staff members of commercial, materials and supply and marketing departments.

(3) Industrial and Agricultural Output Value and Profits

The industrial and agricultural output value of the state farm and land reclamation systems throughout the country was 13.09 billion yuan, up 12.6 percent over last year, of which agricultural output value amounted to 7.37 billion yuan or an increase of 11 percent over last year; industrial output value totaled 5.72 billion yuan or an increase of 14.8 percent over last year; and the output value of light industry of the industrial output value of the state farm and land reclamation systems constituted 66.5 percent.

According to the statistics compiled by the state farm and land reclamation departments of 26 provinces, cities and autonomous regions, computed on the same caliber and comparing 1983 with 1978, 341 farms had doubled their industrial and agricultural output value in 5 years. They constituted 19 percent of the total number of farms under the system in these provinces, cities and autonomous regions.

The profits from the state farm and land reclamation system throughout the country in the whole year totaled 1 billion yuan, an increase of 44.9 percent over last year. The rate of profit from the output value was 7.6 percent, up 1.6 percent over last year.

(4) Agricultural, Forestry, Animal Husbandry, Fishery and Rubber Production

Areas under cultivation totaled 66,452,600 mu, and of sown acreage agricultural crops amounted to 67,757,200 mu, of which:

1. Grain and bean acreage was 51,433,400 mu, an increase of 2.58 percent over last year. The total output was 16.29 billion jin, up 19.4 percent over last year.
 2. Cotton acreage was 3,263,700 mu, a decrease of 2.34 percent over last year. The total output was 2.86 million dan, up 8.7 percent over last year.
 3. Oil-bearing crop acreage was 2.86 million mu, a drop of 15.1 percent over last year. The total output was 2.662 million dan, a drop of 13.8 percent over last year.
 4. Sugarcane acreage was 615,000 mu, up 17.93 percent over last year. The total output was 37,542,200 dan, up 11.84 percent over last year.
 5. Beetroot acreage was 783,300 mu, up 12.24 percent over last year. The total output was 16,842,100 dan, an increase of 33.32 percent over last year.
- Tea acreage was 606,800 mu, a decrease of 9.16 percent over last year. The total output was 459,200 dan, up 5.2 percent over last year.

Fruit tree acreage was 1,233,600 mu, up 1.77 percent over last year. The total output was 6,833,800 dan, up 16.02 percent over last year.

Ginseng acreage was 4,348,000 square meters, a drop of 4.1 percent over last year. Total output was 1.63 million jin, up 14.79 percent over last year.

Forest land acreage (excluding rubber plantations) was 25,339,000 mu, up 1.03 percent over last year, of which 1,450,000 mu were afforested during the year, an increase of 36.16 percent over last year. A total of 39.31 million trees, a number close to that of last year, were planted on a piecemeal basis.

Rubber acreage was 5,418,600 mu, up 1.66 percent over last year. Total dry rubber output was 158,000 dun, up 13.7 percent over last year.

Sisal hemp acreage was 152,900 mu, a drop of 12.9 percent over last year. Total output (discounting fiber) was 357,000 dan, up 11.4 percent over last year.

Large animals in stock at year end totaled 2,078,700 head, a drop of 1.02 percent over last year, of which milk cows in stock at year end totaled 276,600 head, up 8.6 percent over last year.

Sheep and goats in stock at year end totaled 7,810,200 head, up 1.69 percent over last year.

Hogs in stock at year end totaled 3,742,200 head, a decrease of 4.22 percent over last year. Hogs slaughtered totaled 2,745,400 head, basically last year's level.

Aquatic breeding acreage was 1,802,300 mu, up 24.2 percent over last year. The output of aquatic products totaled 41,000 dun, a decrease of 0.72 percent over last year, with fresh water aquatic products making up 82.72 percent.

Output of meat totaled 525 million jin, an increase of 0.51 percent over last year.

Output of sheep wool and goat hair totaled 35,499,200 jin, an increase of 8.15 percent over last year.

Output of milk totaled 910 million jin, up 14.42 percent over last year.

Output of eggs totaled 107 million jin, up 42.13 percent over last year.

(5) Industrial production

Of the 6,791 industrial enterprises under the state farm and land reclamation system, 268 industrial enterprises used independent accounting. Classified by trade, the number in the food industry was 1,882 or 27.7 percent; in the building material industry, 1,165 or 17.2 percent; in the

machine-building industry, 1,148 or 16.9 percent; in the chemical industry, 279 or 4.1 percent; in the textile industry, 214 or 3.2 percent; in the paper industry, 122 or 1.8 percent; in the coal industry, 140 or 2.1 percent; and in the others, 1,055 or 15.5 percent.

Food industry output value in 1983 was 1.974 billion yuan or 34.5 percent of the industrial output value of the state farm and land reclamation system throughout the country, up 14.11 percent over last year. Textile industrial output value was 640 million yuan or 11.2 percent, an increase of 5.31 percent over last year. Chemical industrial output value was 492 million yuan or 8.6 percent, an increase of 20.03 percent over last year. The output value of the machine-building industry was 859 million yuan or 15 percent, an increase of 16.09 percent over last year. The output value of the building material industry was 444 million yuan or 7.8 percent, an increase of 13.85 percent over last year. The output of the coal industry was 125 million yuan or 2.2 percent, up 22.52 percent over last year.

Output of major industrial products: electricity 731 million, up 13.08 percent over last year; machine-made sugar 245,100 dun, up 18.33 percent over last year; dairy products 30,900 dun, up 12.94 percent over last year; coal 5,315,200 dun, up 23.68 percent over last year; synthetic ammonia 99,600 dun, up 15.46 percent over last year; cement 966,600 dun, up 33.85 percent over last year; cotton cloth 145 million meters, a decrease of 7.09 percent over last year; machine-made paper 94,900 dun, up 12 percent over last year; and drinking wine 179,100 dun, up 33.2 percent over last year.

Profits made by industries under the state farm and land reclamation system totaled 640 million yuan, of which 187 million yuan were made by industrial enterprises with independent accounting units.

(6) Sales to the State and Exports of Agricultural Products

The quantity of sales of agricultural products by the state farm and land reclamation system throughout the country totaled 5.511 billion yuan, up 7.51 percent over last year. Sale of grain and beans was 7.572 billion jin, up 39.86 percent; the percentage of marketable grain and beans was 46.48 percent, up 6.78 percent over last year; and meat sales were 287 million jin, of which marketable meat constituted 54.67 percent, a slight decrease over last year. Cotton sales were 266 jin and sales of oil-bearing crops were 133 million jin.

The total value of commodities exported by the state farm and land reclamation system was 646 million yuan, up 23.1 percent over last year.

The export commodities included chiefly soybeans at 117,000 dun; hogs, 428,000 head; live oxen, 8,000 head; tea, 195,800 dan; pilos antler, 105,000 jin; ginseng, 1,120 dan; domestic fowl 1.725 million head; and fresh eggs, 6,580,000 jin.

(7) Investments on Fixed Assets

The total investment of the state farm and land reclamation system throughout the country on fixed assets was valued at 1.456 billion yuan (not including the 492 million yuan for piecemeal construction projects under 50,000 yuan for fixed assets and for other purchases, of which state investments, which registered an increase of 17.3 percent over last year, accounted for 395 million yuan.

Of the total amount of investments on fixed assets, investments on productive construction came to 1.03 billion yuan or 70.7 percent, and investments on non-productive construction totaled 427 million yuan or 29.3 percent, of which a total of 229 million yuan, or 52.93 percent of the investments on non-productive construction was used for housing construction.

The newly increased productive capabilities or economic results in 1983 came in the main from cultivated land, 827,000 mu; reclaimed land for rubber planting, 143,300 mu; transplanting and setting of rubber trees, 143,200 mu; rubber tree nurturing, 4,731,000 mu; newly added large and medium-type tractors, 3,011 units (15.48); hand-operated tractors, 1,116 units (1.37); harvester combines, 1,145; trucks, 1,331; electric power-generating capacity, 113,700; reservoirs, 36 (20.07 million cubic meters); buildings for animal and fowl production, 486,100 square meters; warehouses, 994 (378,000 square meters); housing, 3,309,000 square meters; school buildings, 390,000 square meters; hospitals 107,400 square meters; newly added annual sugar-producing capacity, 5,713 dun; and annual paper and cardboard production capacity, 14,600 dan.

(8) Labor and Wages

Of the 5,017,800 workers and staff members in the state farm and land reclamation system throughout the country, 4,696,800 were regular workers and staff members, 177,900 were casual workers and 128,100 were workers not included in the plans. The amount of wages paid totaled 3.545 billion yuan. The per-capita average annual wage for workers and staff members was 709 yuan or an average increase of 38 yuan, up 5.66 percent over last year.

(9) Science, Education and Public Health

The state farm and land reclamation scientific research units totaled 1,091, with 46,500 workers and staff members. Expenses for scientific research amounted to 23.425 million yuan, a drop of 10.04 percent over last year; subsidies for scientific research totaled 11.192 million yuan, in keeping with last year's level.

The state farm and land reclamation system operated 14,151 schools of various types, of which 10 were institutes of higher learning and 48 were intermediate specialized schools. The number of teachers totaled 161,700 including 1,700 teachers of institutes of higher learning and 1,000 teachers of intermediate specialized schools. Enrollment totaled 2.71 million

students, including 6,200 students of institutes of higher learning and 7,400 students of intermediate specialized schools.

The state farm and land reclamation system's medical units totaled 16,053, with 73,300 hospital beds. There were 28,400 medical doctors, averaging 2.45 doctors and 6.32 hospital beds for every 1,000 people.

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CSO: 4007/16

MOUNTAINOUS COUNTIES PRODUCING COMMODITIES

OW131301 Beijing XINHUA Domestic Service in Chinese 0037 GMT 13 Dec 84

[Excerpts] Beijing, 13 Dec (XINHUA)--The party has adopted a series of policies to encourage and support the development of the agricultural economy of China's mountainous counties. Those policies have invigorated the economy of 851 such counties throughout the country. They are developing from being a single-product economy into a multiple-product economy and from being a self-supporting and self-sufficient economy into an economy producing commodities.

The 851 counties were classified by the State Statistical Bureau according to their terrain and based on information supplied by the various provinces, cities, and autonomous regions (except Xizang). The counties have a rural population of more than 220 million and a cultivated area of over 340 million mu.

It was after 1979 that the economy of the mountainous counties, like that of other counties throughout the country, began to develop vigorously. In 1983, the grain output of the mountainous counties exceeded 170 billion jin, an increase of 15.5 percent over that in 1978; their cotton production amounted to 2.54 million dan, a rise of 51 percent; their oil-bearing crops were over 500,000 dan, increasing by 88 percent; their sugar crops rose to 140 million dan, increasing by 95 percent; the number of their marketed meat hogs reached more than 54 million head, an increase of 31.9 percent.

The mountainous counties have begun to pay attention to multiple utilization of their resources. Some of the counties have given equal emphasis to both ecological and economic targets and, by taking advantage of their favorable local conditions and rationally exploiting their resources, have set up a number of key bases for producing forestry products and other indigenous and commodities. For example, there are the bases producing tung oil, tea oil, tangerines, and tea in the hilly region east of the central-subtropical zone. The tea-oil trees in this region produce more than 90 percent of the tea oil in the country, and the tangerine production in the region accounts for about 50 percent of the country's total production.

Following the development of a diversified economy, the economic efficiency of the mountainous counties has also risen. Not only has their labor

productivity risen, but the productive capacity of their cultivated land has also expanded. In 1983, their average unit area output of grain was 411 jin per mu, an increase of 24.5 percent over that in 1978; cotton was 80 jin per mu, an increase of 60 percent; oil-bearing crops 164 per mu, a rise of 45 percent; sugar crops over 6,700 jin per mu, a rise of 94.7 percent. It is gratifying to note the rise in the agricultural and sideline production of the mountainous counties. In 1983, their total sales of agricultural and sideline products reached 19.29 billion yuan, an increase of 20.9 percent over 1982, which went from 25.4 to 27.7 percent of the country's total agricultural output value.

The development of commodity production in rural areas has substantially raised the income of the population in part of China's mountainous areas. According to a random investigation by the State Statistical Bureau, the average net income of the peasant households in China's mountainous areas was 255.43 yuan in 1983, an increase of 120 percent over that in 1978. Many peasants in these areas can now afford to buy television sets, tape recorders, washing-machines, and electric fans.

However, it must be noted that the economy in other parts of China's mountainous areas is still underdeveloped and that the people there are leading a life of poverty. In the course of expanding commodity production, the poor mountainous areas still need help from all concerned.

CSO: 4007/138

NATIONAL

RENMIN RIBAO ON POVERTY-RIDDEN MOUNTAIN AREAS

Aiding Areas

HK260750 Beijing RENMIN RIBAO in Chinese 21 Dec 84 p 2

[Report by reporter Zhang Zhiye [1728 1807 2814]: "Help Change the Features of Poverty-Ridden Mountain Areas as Quickly as Possible"]

[Text] According to informed sources, beginning in 1983, the state will stop imposing timber procurement and transfer quotas on 225 poverty-ridden mountain counties. The aim is to make these poverty-ridden areas more economically viable by using their own resources. Using the 1984 state timber procurement and transfer quotas for various poverty-ridden mountain counties as a base, there will be an appropriate reduction in 1985 timber procurement quotas for various relevant provinces (autonomous regions). With the procurement quotas dropped, the state will provide the same investment allocations for these 225 counties, with no change for 5 years, using the 1984 investment arrangements as the base.

These 225 mountain counties are respectively spread over 13 provinces and autonomous regions, including Nei Monggol, Shanxi, Hebei, Henan, Anhui, Sichuan, and so forth. Abolition of timber procurement quotas for these mountain counties is an important measure taken by the state to help the poverty-ridden areas change their features as quickly as possible. Responsible persons have pointed out that with timber procurement quotas dropped, tree felling in these areas will then be based on the "forest law." A plan for treating timber production "as an account book" must be drawn up based on the principle of timber consumption being lower than forest output. An annual timber production plan must not exceed the annual approved ceiling on tree felling. We must strengthen forest management work and realistically exercise proper and strict controls over mountain forest resources, there can be no excuse for the random felling of trees.

With the timber procurement quotas for 225 mountain counties dropped, the state will also take the following measures to help poverty-ridden areas open up a market for timber and to develop commodity production:

-- The timber market of poverty-ridden areas must be made available to the outside world and allow direct links between producers and sellers. The

countryside has the right to control or handle the trees felled by it, freely keeping timber for its own use, for sale, for processing purposes, for exchange to obtain grain, or for trading purposes. This should be done through the relevant departments.

-- The Ministry of Forestry must regularly hold two national exhibitions of non-quota timber every year and establish forest products trade service centers in certain large and medium-sized cities, giving poverty-ridden mountain areas priority in regard to the marketing or sale, transportation and storage of timber and forest products.

-- Forest peasants should no longer be confined to just selling wood and developing the processing of timber, so that they can increase output value.

-- Except for a small management fee, any department acting as a purchasing or sales agent for timber and forest products must hand over all the proceeds realized to the relevant forest peasants. No unit can make an unreasonable deduction.

-- Procedures to approving the transportation of timber and delegating to the lower levels the power to grant approval must be simplified. We must resort to the practice of fixing at one time the annual amount of timber to be transported and allowing the county to issue transportation permits within the limits of the fixed amount.

-- Poverty-ridden mountain counties must be allowed to obtain foreign capital and technical equipment and to develop forestry jointly on a mutually profitable basis through such practices as the joint creation of forests, joint repairing of roads, joint planting of seedlings, joint operation of factories (farms), and so forth.

To enable poverty-ridden mountain areas to quicken the growing of seedlings and make rational use of forest resources, the authorities concerned must call on various areas to do a good job of looking into farmland with a steepness of more than 25 degrees and make proper preparations for the conversion of farmland. At present we must first convert farmland more than 30 degrees steep and strive to convert the remainder within 3 years. After the conversion, the original tillers must quickly grow trees and grass. He who grows the trees owns them and can take charge of them permanently. He can also leave them for his heirs.

Leadership cadres at all levels in poverty-ridden counties must make a point of educating peasants, so that they can look farther ahead and take care of both immediate and long-term interests doing a good job of planting seedlings and creating and protecting forests.

Measure to Enliven Economy

HK260756 Beijing RENMIN RIBAO in Chinese 21 Dec 84 p 2

[Short commentary: "An Effective Measure to Enliven the Mountain Area Economy"]

[Text] The abolition of timber procurement quotas for 225 mountain counties by the state is a realistic and effective measure that enables these areas to enliven their economies, develop commodity production, and add to their internal vitality.

We must help mountain areas get rid of poverty and break away from the practice of relying on relief. For many years, the state spent much for the benefit of poverty-ridden areas, but with scant results achieved. The result has been a lack of internal vitality in the economies of the mountain areas. Internal vitality comes from the development of a commodity economy. In the past, the state imposed rigid controls on timber. Mountain areas peasants could scarcely benefit, or could benefit very little. This seriously dampened the enthusiasm of peasants. They had nothing to gain harnessing the mountains. Now, the further relaxation of the forest policy toward the mountain areas has not only stimulated the quick restoration and development of forest production but also helped establish a rational production structure with faster development of agriculture, animal husbandry, the processing industry, and other production efforts. This has enlivened the commodity economy of the whole mountain area and cemented their economic ties with cities and the plains.

The aim in dropping the timber procurement quota is to lighten the burden on poverty-ridden areas and bring about a better development of the forests and the economies of the mountain areas. It is not to encourage peasants to just confine themselves to tree felling and wood selling. The areas concerned must give publicity to the relevant provisions of the "forest law" and educate the peasants, so that they can look to the future, take care of both immediate and long-term interests, and actively engage in growing seedlings and creating and protecting forests. This is a matter that can no longer be overlooked.

CSO: 4007/138

MORE RURAL HOUSEHOLDS SPECIALIZE IN INDUSTRY

OW031632 Beijing XINHUA in English 1518 GMT 3 Dec 84

[Text] Beijing, 3 Dec (XINHUA)—Increases in the number of rural households specializing in industry, commerce, transport, construction and [word indistinct] were reported by the State Statistical Bureau today.

The current policies encourage peasants to switch to non-farming businesses to help develop a market-oriented rural economy to replace the traditional semi-subsistence small farming economy.

Of the 3.34 million specialized household surveyed by the bureau, 12.6 percent specialized in industry at the end of 1983, up from 71.7 percent a year ago. These were in Hebei, Hubei, Shaanxi, Zhejiang and Sichuan provinces and Inner Mongolia Autonomous Region.

The corresponding figure for households specializing in transport, construction, commerce and service trades was 2.7 percent, compared with 21.6 percent in 1982.

The proportion of households specializing in crops and animal farming, however, dropped from 66.7 percent to 59.7 percent over the same period.

The present policy is an inlet enabling farmland to gradually concentrate in the hands of better farmers.

Households farming seven hectares of land or more or raising more than 100 pigs are quite common, according to the bureau.

In most parts of China, an average household usually farms less than one hectare.

Farmland, which belongs to rural collectives as ever, is now farmed on a household basis. The households may retain whatever remains after paying taxes and fulfilling collective contribution and government sales quotes.

Per capital income for specialized households in Hebei, Inner Mongolia, Hubei and Shaanxi averaged 613 yuan last year, nearly 100 percent more than that for non-specialized households.

CSO: 4020/52

ECONOMIST ON POLICIES ON SURPLUS FARM WORKERS

HK070526 Beijing CHINA DAILY in English 7 Nov 84 p 4

[Text] Surplus farm labourers should be allowed to leave their land and work in cities or other provinces, according to Zuo Mu, an economist in the Economic Research Center under the State Council.

More and more people, being liberated from farming, are now leaving their homes to work in cities.

This is an inevitable result of rural economic development, Zuo told the WORLD ECONOMIC HERALD.

Therefore, Zuo said, it would be arbitrary and unreasonable to persist in a policy which allowed them to quit farming but not to leave their land. It is beneficial to both cities and rural areas to let some work elsewhere.

In Jiangdu County, Jiangsu Province, 10 per cent of its 1 million densely packed population were involved in construction and industrial activities in other provinces, contributing to development there.

Even big cities need large number of farmers to help the urban construction and diversify food and service industries. Farmers' traditional handicraft techniques are also popular among urban residents.

But this does not mean encouraging farmers to rush into cities.

However, so long as correct rural policies and prosperity continue, there should be no fears about large migrations of country folk to cities.

On the other hand, urban residents, especially retired workers, technicians and educated young people, were encouraged to go to help countryside development.

Zuo said that policies are needed to ensure a more balanced exchange of labour between cities and the countryside.

CSO: 4020/46

NATIONAL

NATIONAL MEETING OF RURAL SPECIALIZED HOUSEHOLDS

OW171323 Beijing XINHUA in English 1303 GMT 17 Nov 84

[Text] Beijing, 17 November (XINHUA)--A national meeting of rural specialized households financed by peasants, first of its kind in China, opened here today.

The 320 participants are all well-off individual laborers or households with an annual income of more than 10,000 yuan each.

They are of 14 Chinese ethnic groups from 28 provinces, municipalities and autonomous regions.

A leader from the CHINA PEASANTS DAILY who is in charge of the meeting, told XINHUA that the participants representing the 25.6 million specialized households were gathered here to exchange experience in how to get rich and discuss ways to give full rein to the role of specialized households in boosting the nation's economic development and to protect the development of specialized households by legal means.

Attending today's opening meeting were Duan Junyi, standing committee member of the Central Advisory Commission of the Chinese Communist Party, Li Ruishan, vice-minister of the State Economic Commission, Yang Zhong, minister of forestry, and Zhu Rong, vice-minister of agriculture, animal husbandry and fisheries.

The meeting was sponsored by the PEOPLE'S DAILY, the CHINA PEASANTS DAILY and other press organizations in Beijing.

CSO: 4020/46

CHINA DAILY ON RURAL HOUSEHOLDS' PROSPERITY

HK150721 Beijing CHINA DAILY in English 15 Nov 84 p 4

[By Zhou Dezhong]

[Text] A quandary has arisen in the wake of the rural policies adopted by the 3d Plenary Session of the 11th Party Central Committee. Agricultural production is increasing steadily, and peasants' living standards have been greatly improved.

Some peasants have raised output to more than 10,000 jin (five tons) and become wealthier. However, some people fear that the affluence has not been gained through "the right channel," and that rich and poor may become polarized.

Socialist society is, in theory, one of high productivity, prosperity, and progress. It cannot be built on small-production and self-sufficient foundations, but must be based on the developed commercial economy.

After the realization of agricultural production cooperation in the 50's, China adopted the "big and public," three-level system of owning the means of production in people's communes, with ownership by the productive team as the basic form.

But the gradual transfer of productive ownership tied up the development of agriculture and commerce to a large extent. Since the 3d Plenary Session of the 11th Party Central Committee, most peasants have chosen to support the collective contract system based on household economy, which has greatly increased production initiative.

They have started trying to get rich through hard work. Avant-garde specialized households are the main force behind the accelerating rural productivity, and they have made a great impact in modernizing agriculture.

They achieved a comparatively high rate of production. Many households have contracted several hundred mu (15 mu equals a hectare) of farmland, and their annual grain output has reached 10,000 to several hundred thousand jin.

Some keep dozens of pigs or several thousand chickens, or plant trees on wasteland. In this way they contribute more to society and to the country than in the past.

They have also aided the prosperity and economy of the whole countryside. Households specializing in agriculture, forestry, animal husbandry, side-line production, fisheries, commerce, transport and recreational services, have mushroomed.

The avant-garde have speeded up the cultivation and use of natural resources. There are still large areas of wasteland, mountainous areas, lakes and rivers, moors and underground mineral treasures, waiting to be explored.

Survey

Since the adoption of the responsibility system, a large number of households have signed contracts for pioneering cultivation, which have greatly helped to tap hidden resources.

They also use new machinery and methods. According to a survey of 2,277 specialized households in 310 counties over 27 provinces, municipalities and autonomous regions, family-based production units have bought 1,772 tractors (of which 75 percent are walking tractors), and 119 lorries.

Figures from 35 "10,000-yuan households" in Shandong Province's Lingxian County show that total production expenditure in 1978 was 29,982 yuan, with a household average of 857 yuan.

Total expenditure in 1981 increased to 77,517 yuan with a household average of 2,211 yuan.

After becoming wealthier, the peasants have helped develop public welfare on education institutions and transport facilities.

Li Wenming, for example, is a farmer in Maying Village of Tianchang County, Anhui Province. He spent 2,000 yuan installing power cables and electric lights in the village, and bought a color TV and books and magazines for a family recreational centre.

Twenty-two households in Qiaotou Township, Yongjia County of Zhejiang Province, saved 80,000 yuan to build a concrete foot-bridge across the river.

The avant-garde have demonstrated how others can become wealthy through hard work. One household can influence a number of families and advise or subsidize them. As a result, some villages have developed together.

However, some people doubt whether rural families have gained their wealth honestly. The reasons for their suspicions may be that a handful of people have acted dishonestly and they forget that the farmers have worked hard and invested in specialized help.

A survey of 20,800 specialized households in Yingxian County, Shanxi Province, showed that well-to-do families often contained production team cadres or people with leadership experience.

Educated young people or former soldiers were an important ingredient, as were skilled tradesmen and people with management gifts. Fewer than 1 percent had acted illegally.

The successful people had not been able to display their potential earlier because of the "leftist" policy which limited commercial production development. Since the 3d Plenary Session, they have gained the opportunity to become affluent. And that demonstrates the principle of "to each according to his work" in the real sense.

CSO: 4020/46

RESEARCH, DEVELOPMENT LEADS TO RECORD FISH CATCH

OW100920 Beijing XINHUA in English 0905 GMT 10 Nov 84

[Text] Yinchuan, 10 November (XINHUA)--China's freshwater fish catch became the largest in the world by exceeding 1.5 million tons in both 1982 and 1983, according to a national fisheries meeting which just closed here.

The meeting, sponsored by the Ministry of Agriculture, Animal Husbandry and Fisheries, noted that China's freshwater surface covered about 20 million hectares, with five million hectares of utilizable waters.

Since 1979, the country's freshwater fisheries have increased by more than 300,000 hectares, while their catch rose by 440,000 tons. The area given over to fish farming reached three million hectares last year.

China's freshwater fisheries are mainly concentrated along the middle and lower reaches of the Yangtze River, which account for 60 percent of the national catch.

Since 1979, small ponds have been contracted to peasants, who are now also allowed to dig their own ponds. Over two million households have specialized in freshwater fish breeding under the new policies.

The record catches of past 2 years were also the result of research on hatcheries, paddy-field fish raising and new fishing machines. China now manufactures more than 100 types of equipment for pond digging, dredging, dam construction, oxide injection, fodder processing, harvesting and storage, the meeting was told.

CSO: 4020/46

CHINA GROWS MORE CROPS UNDER PLASTIC SHEETS

OW181439 Beijing XINHUA Domestic Service in Chinese 0900 GMT 17 Nov 84

[By correspondent Lu Ping and reporter Wang Man]

[Excerpts] Beijing, 17 Nov (XINHUA)--According to statistics compiled by departments concerned, total acreage of farm crops grown under plastic sheets in China's rural areas this year has topped the 19 million mu mark, more than doubling that in 1983.

China began experimenting with growing crops under plastic sheets with vegetables and cotton as the major crops in 1979. Over the past several years, it has achieved marked results in raising the temperature and preserving the moisture of soil and in achieving early ripening, high yield, and good quality of farm crops. The acreage of cotton and vegetables grown under plastic sheets has continued to expand this year. The acreage of cotton thus grown has increased to 12.5 million mu from last year's 6 million mu. Shandong, Hebei and Henan, northern China's major cotton producers, have regarded the growing of crops under plastic sheets as a major measure for increasing cotton output. Nearly 90 percent of Shandong's cotton growing countries have adopted this technique to achieve an average per mu yield of around 270 jin. The adoption of this technique has gradually pushed the geographical boundary lines of many farm crops northward. This has provided favorable conditions for restructuring northern China's farm production with new crops.

In addition to growing cotton and vegetable crops under plastic sheets, peasants in various localities have also spread this technique to grain and cash crops. The average per mu yield of winter wheat, corn and peanut grown under plastic sheets is 150-200 jin higher than that grown without the benefit of this technique. By taking full advantage of this technique, Hebei, Henan and Shandong have expanded their acreage of winter wheat grown under plastic sheets to over 2 million mu this year.

CSO: 4020/46

PLASTIC SHEETING USED TO SPUR CROP GROWTH

OW231354 Beijing XINHUA in English 1218 GMT Nov 84

[Text] Beijing, 23 November (XINHUA)--China is using plastic sheeting on 1,260,000 hectares of agricultural land this year, double the figure for 1983, the Ministry of Agriculture, Animal Husbandry and Fisheries has announced.

The use of plastic sheeting, which was introduced from abroad in 1979, can promote early maturation of crops and boost output from 30 to 50 percent, due to increased soil temperature and moisture.

At the beginning, experiments were only carried out on vegetables and cotton. Now plastic sheeting has been used successfully on winter wheat, rice, sugar cane, sugar beet, corn and peanuts. The result has been that peasants this year have harvested 1,125 to 1,500 kilograms more winter wheat, corn and peanuts per hectare. The country's leading cotton producer, Shandong Province, has applied the method to 90 percent of its cotton fields this year, and the yield has averaged a record 1,275 kilograms per hectare.

Agricultural research institutes in various parts of China have also developed a way to use the same plastic sheeting for both wheat and cotton crops. Previously, it had to be changed, but, using this method, Wanrong County in Shanxi Province saved 1.8 million yuan-worth of plastic sheeting this year.

Rice seedling beds using the technique amounted to 143,000 hectares this year, accounting for 11 percent of the total area cultivated under plastic sheeting. Compared to conventional methods, the cost has been reduced by 70 to 80 percent.

CSO: 4020/46

BRIEFS

GOOD CITRUS HARVEST EXPECTED--Beijing, 10 December (XINHUA)--China expects to harvest 1,082,500 tons of oranges and tangerines this year, an official from the Ministry of Agriculture, Animal Husbandry and Fisheries told XINHUA today. This will be 367,500 tons more than in 1983. The major producing areas are Sichuan, Hunan, Hubei, Jiangxi, Zhejiang and Jiangsu provinces along the Yangtze River valley. The official attributed the good harvest to new techniques of deep-ploughing, fertilizer applying and pruning by the citrus growers. Sichuan expects a record 500,000 tons this year, a 15.9 percent increase over 1983. The output in Hunan Province is expected to surpass 225,000 tons, 20.8 percent more than last year. A total of more than 313 hectares of maternal tree orchards have been cultivated in Zhejiang, Jiangsu, Hunan, Hubei and Sichuan provinces to provide improved varieties of citrus trees for rejuvenation. More than 33.7 million citrus trees have been distributed this year, giving an impetus to future development. [Text] [Beijing XINHUA in English 1126 GMT 10 Dec 84 OW]

FARM MACHINERY ORDERS HIT RECORD--Beijing, 25 November (XINHUA)--China's farm machinery departments had received orders for 8.44 billion yuan worth of products by mid-October, the largest ever since 1980. At a national farm machinery order-placing conference held in Handan, Hebei Province, in mid-October, the volume of business came to 1.99 billion yuan, 52 percent more than at a similar conference at the same time last year. With the rise in rural purchasing power, peasants began to place orders for more large and medium-sized tractors this year after several years' decline in the sales of such tractors. Smaller models continue to sell well. Demand for brand name walking tractors continue to rise while the sales of other brands show a slightly downward trend. At the Handan order-placing conference, 26,500 large and medium-sized tractors were ordered, 2.6 times that of last year and the number of smaller "four wheel" models ordered came to 92,000, 92 percent more than last year. Sales of tractor trailers used for transportation purposes rose sharply, with the volume of transaction rising 160 percent over last year's. [Text] [Beijing XINHUA in English 0837 GMT 25 Nov 84 OW]

CSO: 4020/46

WAYS TO RAISE GRAIN OUTPUT AND ECONOMIC RESULTS EXPLORED

Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION IN CHINA] in Chinese No 5, 24 May 84 pp 26-27

[Article by E Wenyu [6759 2429 3769], deputy director of the Friendship Farm in Heilongjiang Province: "Exploring Ways To Raise the Output and Economic Results in the Northern Dryland Grain-producing Areas"]

[Text] The State Scientific and Technological Commission and the former Ministry of State Farms and Land Reclamation decided in 1978 to carry out a comprehensive scientific experiment in agricultural modernization in the northern dryland grain-producing areas at the No 5 sub-farm under the Friendship Farm. Since its inception in 1980, this program had undergone four production experimentation cycles by 1983.

The No 5 sub-farm has 129,351 mu of cultivated land and 2,986 workers and staff members; it possesses 10 agricultural and animal husbandry production teams and 8 team-level industrial and sideline production industries and service units, 79 tractors, 38 harvester combines, 24 large sprinklers, 9 trucks and 600 pieces of farm tools of all descriptions, and its agricultural production has basically been mechanized.

While popularizing and applying advanced technology and equipment at home and from abroad, the sub-farm made combined efforts to tackle key problems by achieving higher yields and gave play to the various scientific and technological achievements; using typical cases to lead the way, it brought about its best farming season and raised labor productivity and unit output. Gratifying results were achieved in the comprehensive scientific experiment in the past 4 years.

The per-mu grain-bean output increased markedly. In the past 4 years prior to the experiment (1976-1979), the No 5 sub-farm's average per-mu grain-bean output was 286.5 jin and reached 333.2 jin, or an increase of 16.3 percent, 4 years later. By 1983, the per-mu grain-bean output totaled 444.1 jin, and the average annual rate of accumulative increase was 11.5 percent, of which the average per-mu accumulative increase of wheat was as high as 25.2 percent, and reached 559.6 jin by 1983. The per-mu soybean output from 13,280 mu of fields, where key problems were tackled, yielded 407 jin.

The total output value increased by a wide margin. In the 4 years prior to the experiment, the total output value of the No 5 sub-farm averaged 6,394,000 yuan. Four years later, it averaged 11,845,700 yuan or 1.85 times greater than 4 years before. The state investment in the No 5 sub-farm in these 4 years since the beginning of the experiment totaled 8,657,000 yuan. In 4 years, it returned 5,584,000 yuan in the form of profit deliveries, tax payments and depreciation costs, or 69.1 percent of the total investment.

Economic results increased notably. In the 4 years of the experiment, the accumulative profits of the No 5 sub-farm from operations amounted to 6.08 million yuan, and the increase of 415.2 percent as compared with the accumulative profits of 1.18 million yuan gained in the 4 years prior to the experiment. In other words, the profits were five times greater than in the previous 4 years, exceeding the range of an 85 percent increase in output value. The average annual income of the workers and staff members of the No 5 sub-farm during the 4 years was 820 yuan, which was 108 yuan higher than the average level on the whole farm, or 15 percent higher.

During the comprehensive scientific experiment in the past 4 years, the No 5 sub-farm had concentrated work in the following areas:

1. Integrating traditional agriculture with modernized agriculture. This was the general technical policy of the comprehensive scientific experiment which paid attention to applying digesting and absorbing advanced technology from abroad and also attached importance to summing up, transforming and developing traditional farming techniques and the farm's many years of experience.

First of all, after years of experiment in comparison with the farming system, it was decided that the system of less farming should be popularized. This basic farming system of loosening instead of turning over the soil and of combining loosening, turning over and raking the soil has played a prominent role in preserving the soil moisture against drought and also saved 1.40 yuan per mu in operational expenses.

Steps had been taken to combine utilization with maintenance to cultivate the fertility of the soil mainly by popularizing such methods as treatment of the stalks to restore the fields, multiple cropping, interplanting, exclusive planting of green manure and applications of organic fertilizer by rotation. According to investigations, the organic properties of the soil from the fields undergoing stalk treatment for restoration in the past 6 years in a row registered an increase of 0.52 percent. In addition, the physiochemical properties of the soil and the soil temperature went up, water contents increased, the unit weight of the soil dropped and the microbiological activity of the soil was enhanced. To expand the acreage of fields undergoing stalk treatment for restoration and to reduce the operational cost for field restoration, a harvester combine was refitted to harvest, thresh and crush the stalks for field restoration in one operation.

In plant protection, a bee-breeding factory was established for mechanically producing trichogramma to bring about a comprehensive system of combating paddy rice borers with the emphasis on combining production and prevention. As a result, the effectiveness in treating the paddy rice borers reached 71.2-92.4 percent and the scope of the increase registered 3/10 percent. The method popularized to prevent and cure the loose smut of wheat by treating seeds with frost-resistant agricultural chemicals also raised preventive effectiveness and lowered expenses. In 1983 alone, 81,900 yuan in pesticides had been saved. Chemical weed killer was used over large areas with 85-95 percent weed eradication effectiveness. By combining machinery with pesticides in prevention and eradication, weed killing effectiveness was raised to cultivate the fertility of the soil, preserve the soil moisture and reduce production costs.

While using the imported farming machines effectively, a number of new types of farm machines and tools were trial-produced according to conditions and production adaptability and put into operation one after the other. The seeding machine designed and produced by the Friendship Farm is capable of handling the precision sowing of soybeans and corn. The rate of proper distance between hills for corn was 91.3 percent and that of soybeans 62.6 percent. Working under drought conditions it can ensure a full stand of seedlings and increase production by over 10 percent. At present, the No 5 sub-farm is using the precision seeding machine in one-third of the corn and soybean-sown acreage.

The socialization and specialization of production have shaped production and services into two lines. The grain from the drying grounds was handled in a factory-like way, and chemical fertilizers, farm pesticides, seeds, spare parts and oil-bearing crops were put under specialized management. The No 5 sub-farm set up mechanized and automatic wheat-drying equipment capable of handling 400 dun a day. This basically solved the problem of drying grain often affected by autumn rainfall during the wheat harvesting season.

2. Raising the ability to combat natural disasters and establishing fields that would ensure stable yields despite drought or excessive rain.

On the basis of the results of investigations on natural resources and summing up the historical experience and the lessons learned, the No 5 sub-farm realized that the natural factors that controlled grain production were drought and waterlogging. To cope with the situation, the policy of "giving first place to waterlogging control but controlling drought and waterlogging at the same time" was defined and farmland capital construction centered around flood control was carried out steadfastly. In 4 years, the addition of more than 480,000 cubic meters of earthworks was completed on the original basis. The Qixing River embankment was extended and reinforced and irrigation canals and ditches in low-lying land were formed into a complete network, a drainage station was built and a shelter forest was also built to protect 9,297 mu of farmland. To irrigate against drought and develop and utilize the ground water more effectively, the conventional gravitational irrigation and irrigation by means of mechanized pump hoses,

which cost more money and yielded poor results, were gradually eliminated and large sprinklers were used for irrigating large areas. In the past 4 years, the No 5 sub-farm sank 96 power pump wells and purchased 24 large sprinklers that were capable of controlling an area of over 60,000 mu, or 50 percent of the total cultivated acreage. During the serious drought of 1982, the No 5 sub-farm used 19 sprinklers to irrigate 20,750 mu of wheat and the per-mu yield amounted to 362.9 jin, an increase of 58.4 percent as compared with the per-mu yield of 229.1 jin from the fields without sprinkling. The per-mu yield of the 14,323 mu of soybeans under sprinkling irrigation was 319.7 jin or an increase of 40.8 percent as compared with the per-mu yield of 229.6 jin from fields without sprinkling. According to the investigation by the No 2 team of the No 5 sub-farm, the per-mu wheat yield from fields that were sprinkled once was 383 jin, The per-mu yield from fields that were sprinkled three times amounted to 564 jin. Some tracts yielded as much as 620 jin, while on the other hand, the per-mu yield from field without sprinkling amounted to only 260 jin. In that year, by using sprinklers for irrigation, the No 5 sub-farm increased the output of wheat and soybeans by 2.27 million jin and 1.32 million jin, respectively, netting a profit of 700,957 yuan. In addition, it also used sprinklers to spray chemical fertilizer and agricultural pesticides while irrigating with water and achieved good results. According to the No 5 sub-farm's experience, the plan formulated by the farm to build 1 million mu of fields, thus ensuring high and stable yields despite drought or excessive rain, went into effect in 1983.

3. Developing industrial and sideline production and diversified undertakings.

A high degree of mechanization and the application of new technology in agricultural production have separated an enormous labor force from agriculture. How to place this group of people properly was the realistic question faced by the No 5 sub-farm. For 4 years, by developing industrial and sideline production and diversified undertakings, the No 5 sub-farm not only placed this portion of workers and employees locally but also opened up all revenues for production. The number of agricultural workers on the No 5 sub-farm dropped from 1,711 in 1979 to 984 in 1983, a decrease of 42.4 percent. On the other hand, workers engaged in industrial and sideline production and capital construction rose from 566 in 1979 to 843 in 1983, up 48.9 percent. The output value of industrial and sideline production jumped from 1,321,000 yuan to 4.2 million yuan in 1983, an increase of 217.9 percent. Profits from industrial and sideline production rose from 490,000 yuan in 1979 to 900,000 yuan in 1983, up 81.5 percent, or 36 percent of the operational profits of the entire sub-farm totaling 2.5 million yuan. In addition, in the past 4 years, the No 5 sub-farm built a milk powder plant handling 5 dun of fesh milk a day, a brick factory with an annual productive capacity of 20 million red bricks, a confectionary workshop with an annual productive capacity of 50 dun and a workshop producing Qu wine and another one producing Great Northern Wilderness wind. In diversified undertakings, the sub-farm set up production bases for water-melons, sugarbeets, black jialuns [7815 0502 0178], white cucumber seeds

and vegetables. In animal husbandry, it developed milk cows, cattle, stud rabbits and meat chicken. By vigorously developing industrial and sideline production and diversified undertakings, the No 5 sub-farm continually raised the degree of agricultural mechanization and found a feasible way to place more and more of the labor force locally that were freed from agricultural production.

4. Setting up and perfecting the system of contracted responsibilities for operations.

In the course of the experiment, the No 5 sub-farm set up the system of contracted responsibilities for operations and gradually perfected and advanced it. At present, the system of contracting specialized jobs and of accounting by trades is being instituted in many forms such as linking planned output with remuneration, floating wages and the all-round contract system covering full rewards and full compensation and so forth. As a result, the enthusiasm of the workers and staff members is further mobilized and their devotion to work and sense of responsibility as masters of their own affairs further strengthened.

Of course, there is still room for perfection and the development of the present system of contracted responsibilities for production and operation. As the CPC Central Committee Documents No 1 of 1983 and of 1984 are being implemented in a deepgoing way, people's mind are being continually emancipated. This will definitely promote and ensure the development of agricultural modernization.

12662

CSO: 4007/16

TRANSPORVINCIAL AFFAIRS

FOREST ZONE PROSPERS IN NORTHEASTERN CHINA

OW031126 Beijing XINHUA in English 1115 GMT 3 Dec 84

[Text] Harbin, 3 December (XINHUA)--A modern timber producing base has taken shape in China's largest forest zone in the Dahinggan (Greater Khingan) mountains after 20 years' construction.

Sixty-three forestry farms, 30 timber yards, 700 kilometers of railways and 7,000 kilometers of roads have been built there since 1964. The base is now able to produce 4.3 million cubic meters of timber a year, in addition to logs, plywood, fiber and shaving boards and tannin extract. The timber output is about 8.2 percent of the country's total.

Dahinggan in northeast China has 6.5 million hectares of pine, birch, elm, willow and poplar forests with timber reserves of more than 500 million cubic meters. In the past 10 years forestry workers have regenerated 57,000 hectares of forests and tended 333,000 hectares of young growth.

The six-million hectare nurseries and a seed bank can provide other forestry zones with surplus saplings and seeds.

The zone's population has expanded many times to reach 400,000. Jiagedaqi, once a haunt of wild animals, is now the seat of the Dahinggan Forestry Administrative Bureau and the political, economic, cultural and communication center of the whole forest area.

The zone has 290 middle and primary schools with 114,000 pupils. Over 90 percent of its 82,300 households have television sets.

CSO: 4020/46

BRIEFS

EXTENSIVE AERIAL SEEDING--Beijing, 25 November (XINHUA)--A fleet of more than 150 airplanes have been dispatched by civil aviation departments to aerial-seed trees and grass in mountain areas in more than 20 provinces, municipalities and autonomous regions, according to the general administration of civil aviation. The aerial-seeded acreage has come to 920,000 hectares since winter set in, 30 percent more than the 660,000 hectares last year. The Lanzhou Civil Aviation Bureau have now moved to Xinjiang to seed grazing grounds. According to the general civil aviation administration, one plane may seed more than 4000 hectares a day and that cost is only about half that of the manual operations. The grass survival rate is about 70 percent, the administration said. [Text] [Beijing XINHUA in English 0834 GMT 25 Nov 84 OW]

PLANT PROTECTION COMPANIES--Beijing, 21 November (XINHUA)--About 70,000 plant protection companies and teams have been set up in the Chinese countryside in recent years, according to the Ministry of Agriculture, Animal Husbandry and Fisheries. These companies and teams, plus numerous peasant households specializing in prevention and treatment of plant insect pests and diseases, have contracted to protect more than 17.3 million hectares of crops. The companies and teams concentrate on applying pesticides in a timely and organized fashion. In comparison with separate application by individual peasant families, the new practice raises efficiency and saves 20 percent of pesticides. Henan Province has applied the responsibility system of plant protection on over 1.73 million hectares of crops in the past few years, reducing losses by 500,000 tons of grain and 50,000 tons of ginned cotton. The plant protection service company in Chongqing, Sichuan Province, has supplied in the past 4 years 30 kinds of highly effective, low-toxic pesticides and 4,300 spraying machines to rural areas. [Text] [Beijing XINHUA in English 0843 GMT 21 Nov 84 OW]

AERIAL DESERT SEEDING--Hohhot, 29 November (XINHUA)--Desert control through aerial seeding of grass and trees has been proved successful in north and northwest China. The green coverage rate on 174,000 hectares in Inner Mongolia was raised from 15 percent 4 years ago to more than 60 percent this year. Shifting sand dunes have been anchored and the area now yields a per-hectare average of nine tons of fresh fodder grass a year. A 160,000-hectare grass and tree belt in the autonomous region's Ejinhoro Banner (county) has saved much farmland from incursions by the Mu Us and Hobq deserts. Per capita income in the banner averaged 283 yuan in 1983, as against 39 yuan 6 years ago. Similar

results have been reported in Xinjiang, Gansu and Ningxia. The United Nations educational, scientific and cultural organization recently held an international desert control meeting in Lanzhou, Gansu Province. Foreign specialists also visited aerial seeding areas in the Tengger desert in Inner Mongolia. China has eight large deserts with a total area of 100 million hectares. [Text] [Beijing XINHUA in English 1313 GMT 29 Nov 84 OW]

BEIJING FLOOD PREVENTION MONITOR--Beijing, 4 Dec (XINHUA)--A new flood prevention monitor has been installed in the Beijing area. The computer-controlled device is the largest, most functional, and most technical advanced hydrological monitor in the nation. Compared with other hydrological monitors previously installed in Beijing, the new monitor is capable of sending out flood warning signals 6 to 8 hours earlier. Even when wired communications are cut by mountain torrents, it still can automatically sent out all types of hydrological information through the radio. In addition to Beijing, similar monitoring systems have also been installed in Guangdong, Zhejiang, Henan, and Heilongjiang. [Summary] [Beijing XINHUA Domestic Service in Chinese 0125 GMT 4 Dec 84 OW]

CSO: 4007/127

BEIJING

GREEN BELTS TO FLANK RIVERS IN BEIJING

OW151240 Beijing XINHUA in English 1231 GMT 15 Nov 84

[Text] Beijing, 15 November (XINHUA)--Green belts will flank the nearly 300 kilometers of riverside in urban Beijing. This was decided by the municipal government today.

Trees, lawns and flowers will be planted in areas 50 to 100 meters wide along 40 rivers banks, while makeshift houses and piles of construction materials will be removed. Digging up earth and stones in these areas has been banned, according to the decision.

This is part of the efforts the Beijing municipal government has been making to green the city over the past few years.

Binhe Park on the city moat in the southern sector is a typical success story. It was once occupied by stores, piles of construction materials and shabby houses. But after several months of effort this year, it was turned into a beautiful park with 50,000 square meters of lawns and about 10,000 trees and flowers. Some statues have even been erected.

Trees have been planted along roads wherever they are paved over the past 35 years in Beijing. Now, 1,800 kilometers of roads and rivers are flanked by trees.

There are 12.46 million trees and 2,000 hectares of lawns in the Chinese capital. This works out to a green area of 5.14 square meters per resident, or 1.54 square meters more than in 1949.

The total number of parks in and outside the city proper has increased from 7 to 32 in the past 35 years.

CSO: 4020/46

BEIJING

BRIEFS

RULES LIMIT LAND USE--Beijing, 29 November (XINHUA)--New regulations on land use issued by the Beijing Municipal People's Congress Standing Committee today called on peasants around the city to economize the use of land, and the municipal government encourages them to build two-story houses instead of traditional adobe dwellings. Beijing Vice-Mayor Huang Chao told a municipal meeting that the rural area around the Chinese capital had been experiencing a building boom for the past several years. He added that in the past 5 years housing space grew 35 percent, to 14 square meters per rural capita. But so many peasants were building houses that by last year the amount of cultivable land per capita had dropped by 53 percent compared with 1952, to 1.65 mu (about one tenth of a hectare). According to the new regulations, each rural household will be limited to 0.3 mu--an area about the size of a basketball court. A city-wide survey will be carried out, land use certificates issued and fines levied on families using extra land. Village committees should draft their local development plans, the regulations said. [Text] [Beijing XINHUA in English 1220 GMT 29 Nov 84 OW]

CSO: 4020/46

GANSU

BRIEFS

ANIMAL HUSBANDRY DEVELOPED--The province's animal husbandry production is developing from traditional production, which focuses on forming, to commodity production. The gross animal husbandry output value of the province this year may be as high as 670 million yuan, an increase of 2.15 percent over last year. On average, each peasant household earns 151 yuan from animal husbandry. According to statistics from the departments concerned, the province has developed in varying degrees various kinds of livestock. Beef and mutton production has increased by more than 25 percent and 26 percent respectively over last year. Meanwhile, the pork production, the province's principal meat product, totaled 274.14 million jin, an increase of 6.7 percent over last year. [Summary] [Lanzhou Gansu Provincial Service in Mandarin 1100 GMT Dec 84 HK]

CSO: 4007/138

EXPERIMENT RECOVERS ERODED LAND

OW301341 Beijing XINHUA in English 1323 GMT 30 Nov 84

[Text] Guangzhou, 30 November (XINHUA)--Chinese botanists have carried out a successful afforestation experiment on 433 hectares of barren land on the northern fringe of the tropical zone in coastal Guangdong Province over the past 20 years.

This has set an example for Guangdong and Fujian Provinces and the Guangxi Zhuang autonomous region to recover eroded land, concluded a recent assessment meeting organised by the division of biology under the Chinese Academy of Sciences.

Deforested land on the fringes of the tropics is liable to soil erosion and desertification due to strong solar radiation and scouring by rainstorms, according to scientists. This is why most deserts and semi-deserts are spread along the edges of the tropics.

Botanists from the South China Institute of Botany in Guangdong began the experiment in 1959 in Xiaoliang, Dianbai County, where sandy land is criss-crossed by gullies. They planted fast-growing and drought-enduring eucalyptus and pines first, and then leguminous plants which fix nitrogen in the soil.

Now the whole 433-hectare experiemntal zone has been planted with a variety of vegetation--Chinese fan palms, pepper plants, lichees, bananas and other plants. Trees planted 10 years ago are now mature.

Scientists have found 400 species of insects, 100 species of vertebrates, eight species of amphibians, nine species of reptiles and 74 species of birds flourishing in the experimental zone.

CSO: 4020/46

BRIEFS

RECORD RICE HARVEST--Guangzhou, 10 Dec (XINHUA)--Guangdong Province reported a record late rice harvest of 8.95 million tons this year. Provincial officials said the grain was harvested from 2 million hectares, a drop of 46,000 since last year. The high yield, an increase of 250,000 tons over 1983, was due to changes in the farming system and the use of scientific methods. Guangdong has expanded the areas sown to peanuts, vegetables and fruit this year and also raised more fish. Scientific farming, rational use of fertilizer and improved strains of rice seeds helped the province get a high yield this year. More than 800,000 hectares or 40 percent of the paddy fields were planted with hybrid rice. In Shantou, a high-yield area, rice reaped from 1 hectare averaged about 6 tons this year thanks to combining advanced rice-planting techniques with the traditional intensive farming. [Text] [Beijing XINHUA in English 1141 GMT 10 Dec 84 OW]

BUMPER HARVESTS--Guangdong has reaped another bumper harvest in agriculture this year on the basis of increased output in the previous 2 years. According to initial figures from the provincial statistics bureau, there has been balanced development of agriculture, forestry, animal husbandry, sideline occupations, and fisheries in the province. Total output value is expected to rise by 7.2 percent over last year. This year the province's grain output broke through the 39.75 billion jin mark for the first time. Sugar cane output rose by 36 percent over last year, peanuts rose by 12.2 percent, aquatic products by 3.2 percent, and rubber by 6.4 percent. New records were set in each of these items. In addition output of jute and ramie increased by 19.4 percent. The afforested area increased by 30.4 percent. Tea, fruit, and silk cocoons all showed increases over last year. [Text] [Guangzhou Guangdong Provincial Service in Mandarin 0400 GMT 15 Dec 84]

AFFORESTATION PLAN OVERFULFILLED--Guangdong Province has afforested 10.45 million mu of land this year, overfulfilling the 1984 afforestation plan by 23 percent. The total acreage includes 3.6 million mu afforested by individual peasants on contracted plots, or on plots assigned to them for their own use. [Summary] [Beijing XINHUA Domestic Service in Chinese 0009 GMT 17 Dec 84 OW]

CSO: 4007/138

GUANXI

BRIEFS

AFFORESTATION BOOSTED--Since the region has implemented a series of reformative policies toward forestry and has mobilized the initiative of peasants from the beginning of this year, the region has totally afforested 4.76 million mu of farmland, or 60 percent more than this year's assigned target, an increase of 17 percent compared with last year. Moreover, the region has raised saplings on 37,000 mu of farmland, breaking the record in the recent decade. Presently, the region has over 120,000 specialized households, major households, and economic associations, about four times more than last year. There are 3.15 million mu of private plots and plots contracted on responsibility system for afforestation, accounting for 88 percent of the region's afforestation area. And the peasants have acquired some 20 million yuan of loans for the work. [Summary] [Nanning Guangxi Regional Service in Mandarin 1130 GMT. 7 Dec 84 HK]

CSO: 4007/138

CHEN LEI ON DEVELOPING FAMILY FARMS

SK270551 Harbin Heilongjiang Provincial Service in Mandarin 1000 GMT 26 Dec 84

[Excerpts] At today's provincial state farm work conference, Governor Chen Lei noted: State farms should comprehensively carry out three reforms in a well-guided and step-by-step manner. They should operate family farms, readjust the production structure, and reform the management system.

While referring to comprehensively operating family farms, Governor Chen Lei said: All localities should respect the desire of the masses while selecting the forms of family farms. Evidently, individual family farms will be the main form chosen by the majority. However, we may also operate joint family farms. We should pay attention to the scale of farms and economic results. We will not achieve good economic results if farmland is divided into fragments like a village, because this will make mechanized farming difficult. We should strive to make more peasant households shift their business to comprehensive operations so that the land will be concentrated in the hands of farming experts. We should operate some large family farms. There will be more medium-sized and small family farms because the present scale and degree of land concentration is not so ideal. Therefore, we should attend to allowing them to contract a proper amount of land and help and support them to carry out business other than farming, so that they will have the hope of becoming better off. We should make good use of farm machinery and explore ways to mechanize farming on family farms.

Governor Chen Lei said: State farms should vigorously readjust the production structure, turning single-product operations into comprehensive operations. In guiding ideology, we should use the idea of systems engineering to reveal all the contents and the inherent law of agriculture and to establish a concept of scientific and modern agricultural structure--a concept of viewing the whole and multi-level situations in the agricultural structure. Speaking precisely, there are three aspects. The first aspect is to take farming as the foundation while not relaxing grain cultivation; the second aspect is to comprehensively develop forestry, animal husbandry, sideline occupations, and fisheries within the scope of large-scale farming, particularly the development of animal husbandry and breeding of aquatic products; and the third aspect is to vigorously develop plant-run and brigade-run industrial enterprises, and turn agriculture and fisheries into eight industries--planting and breeding industries, mining and processing industries, commerce,

transportation, service, energy-related industries, including coal and power, and building materials industry. Particular attention should be paid to developing the processing industry.

At the end of his speech, Governor Chen Lei touched on reforming the management system of state farms. He said: After we have comprehensively operated family farms, the former unified operational forms and the related management system will no longer be suitable and they must be reformed. Considering the important status of the provincial state farms and the historical experiences and lessons we gained in changing the management system, it is decided that all farms under the provincial farm administrative general bureau will not be managed by the lower levels, including prefectures and cities, and their entity and integrity will remain unchanged. The organs of state farms should be streamlined. In addition to keeping some necessary administrative organs, we should also establish specialized trading companies in line with the needs of economic development. All general farms should abolish branch farms and the surplus cadres may work in plant-run and brigade-run industrial enterprises or engage in tertiary industry.

CSO: 4007/138

REFORM OF HEILONGJIANG STATE FARMS REFORM DISCUSSED

Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION IN CHINA] in Chinese No 5, 24 May 84 pp 5-6

[Article by Zhang Linchi [1728 2651 3069]: "Reform the Farm Economic Structure"]

[Text] Editor's note: this was the report to the Heilongjiang provincial CPC committee in August of last year by Comrade Zhang Linchi after conducting an investigation in the Heilongjiang reclamation area. The provincial CPC committee at that time printed this report for distribution to leading state farm and land reclamation departments and farms at all levels throughout the province for reference. The question put forth in this report is an important one universally existing in the state farm and land reclamation system throughout the country. It is hereby published especially for reference.

As a result of the implementation of the principles and policies of the 3d Plenary Session of the 11th CPC Central Committee and the 12th Party Congress of the CPC, especially after the system of linking planned output with remuneration was instituted, the state farms in Heilongjiang Province reaped a bumper harvest in a year of natural disasters and raised economic results. The new situation that emerged, however, also raises a new question: what are we going to do with the enormous labor force that has been separated from agricultural production? The answer is to develop diversified undertakings actively and reform the economic structure of the farms. In the past an agricultural worker on a farm (including a maintenance man) took care of scores of mu of land. After the responsibility system was instituted, a single person can now take charge of 100 mu or 200 mu, and each agricultural worker on the 13 farms under the Baoquanling Farm Administration Bureau now handles 350 mu. With the labor efficiency raised and with the conservation of an enormous labor force, some production teams have made contracts to grow industrial crops. However, manpower is still in abundance, and it is necessary to develop diversified undertakings. By practicing the system of having peasant households assume full responsibility for most of the farm work and by establishing family farms,

household sideline production will be further developed and a number of specialized households will emerge. This will increase the output of diversified undertakings and their channels.

With the farms basically mechanized and moving toward the modernization of agriculture, labor productivity will be greatly improved. For example, a farm machine operator in the No 2 team of the No 5 sub-farm under the Friendship Farm has taken charge of over 1,000 mu. A farm machine operator in the Honghe Farm has also taken charge of 1,000 mu of land. With the tendency to conserve much labor, it is all the more necessary to develop diversified undertakings and reform the economic structure of the farms.

Some farms engaged in diversified undertakings several years ago, while the industrial output value of some farms approached the agricultural output value and the proportion of forestry, animal husbandry, sideline production and fishery has very small. After the (1983) Document No 1 of the CPC Central Committee was handed down, the farms have paid more attention to developing diversified undertakings and have achieved notable results, but the proportion of forestry, animal husbandry, sideline production and fishery still remains very small, each constituting roughly 3 percent of the total output value. In these circumstances, the development of diversified undertakings will rapidly and quantitatively increase the production of commodities needed by the people. So long as the leaderships of the farms clearly recognize the new question emerging out of the new situation and take the initiative in energetically developing diversified undertakings instead of taking a passive and negative attitude toward making work arrangements in relation to the huge labor forces conserved after the responsibility system was implemented, its output value will approach, catch up with and overtake agricultural (meaning planting) output value to usher the farms onto a new stage of economic structural reform.

All the farms are now discussing how to realize the grand target of quadrupling the gross output value by the end of this century. It would be very difficult if we only counted on quadrupling the grain output. Only by developing diversified undertakings can we realize this grand target. We have discussed the economic results of afforestation with several farms; computed on the basis of felling in the past 20 years or so, the average annual per-mu output value is equivalent to the wheat output value of 2 or 3 mu. The output value of economic forests is even greater; with the processing of forest products, the output value is expected to be several times or even greater than growing wheat. Forestry alone can catch up with or overtake current agricultural output value. The output value of the animal husbandry, breeding and processing industries can also approach the agricultural output value. Is it not a change in the economic structure already when the percentage of the output value of forestry, animal husbandry sideline production and fishery rises sharply in relation to the total output value?

The farms have abundant natural resources, and diversified undertakings will have a future as long as the natural resources are utilized in a rational way. With the diversified undertakings developed and the economic

structure of the farms reformed, capital fund turnover will speed up and economic results will be greatly improved. In this way, even in a year of natural disaster with a poor harvest, both income and economic results will remain stable.

How are we going to develop diversified undertakings and reform the economic structure of the farms? We must implement the guidelines of the 1983 Document No 1 of the CPC Central Committee in line with local conditions. Several questions were discussed at the farm symposia.

I. Forestry

People in recent years have recognized not only the tremendous role of tree planting and afforestation in beautifying the environment, protecting the farmland and regulating minor climates but also the effects on protecting the ecological balance and the economic results. This is a leap forward in recognition. The general farm bureau's per-mu investment of 25 yuan for afforestation in meeting the required standards has greatly aroused the farms in tree planting and afforestation. In recent years, the larger farms afforested over 10,000 mu a year.

Three situations currently exist in the mountain farm forests and in the land suitable for afforestation:

(1) The large number of young forests should be tended to and managed more rapidly so that they will grow into useful timber; (2) trees must be planted as quickly as possible on barren mountains and hills and in sparse woodlands not worth nurturing; and (3) efforts should be made to regenerate the limited number of overripe forests.

From a long-range point of view, afforestation requires little investment to achieve great benefits, but it takes a long time to yield results. Thus it is also necessary to engage in diversified undertakings in areas suitable for forestry, farming, animal husbandry and fishery, whatever the case may be. The building of timber forests should be combined with economic forests and fuel forests; for example, growing mountain grapes, lingdang fruits [6875 3981 2654], black jialuns [7815 0502 0178] and matrimony vines will bring in an income in 3 or 4 years to obtain short-term effects with long-term projects.

II. Animal Husbandry

For many years, the animal husbandry enterprise undertaken by the state farms has always been considered a losing proposition and as a result it has not been developed very well. This notion, however, is now gradually changing. Hog raising was losing money in the past but once contracts were signed it was turned from deficits to profits. This shows that animal husbandry is not necessarily a money-losing venture. If the problem of losing money is not solved, animal husbandry cannot be developed swiftly. To solve any loss incurred, it is necessary to start with contracts. It goes without saying that other problems must also be solved.

What is to be developed in animal husbandry? It is necessary to develop more herbivorous animals such as cattle, sheep, rabbits and so forth, particularly milk cows. The number of hogs, chicken, ducks and geese to be raised should be determined according to sales, and production-marketing contracts should be signed whenever possible. Energetic efforts should be made to develop fish breeding and to build pig sties and cattle pens beside the fish ponds, thus combining fishery with animal husbandry. To develop animal husbandry, it is also necessary to engage in the processing of fodder and animal products.

III. Industry

Industries are fast developing in many farms, and the output value of some has already approached or overtaken the agricultural output value. The important task at present is to develop the fodder and agricultural and animal by-product processing industries. The farms have ample raw materials, and it is very economical to do processing locally. These two processing industries require only a small investment but can achieve quick results and reap big benefits to suit and promote the development of diversified undertakings and bring about a benign cycle in agricultural production in order to become an entity capable of producing large quantities of needed commodities for the state and improving the people's foodstuffs.

The state farms have the tremendous potential to develop diversified undertakings. Developing the processing industries will coordinate and promote the development of diversified undertakings in forestry and animal husbandry.

IV. Agriculture

In actively developing diversified undertakings, it is necessary to emphasize the task of sparing no effort in promoting grain production. We reclaimed the Great Northern Wilderness for the purpose of building a commercial grain base. We have definitely delivered large quantities of grain to the state since its reclamation. But emphasizing commercial grain bases alone now is not enough; we must develop diversified undertakings to make still greater contributions to the state. By putting stress now on tree planting and afforestation and the development of diversified undertakings such as animal husbandry is to build an excellent ecological environment and an economic structure revolving in a benign cycle to take the road of organic agricultural development. In this way, it will make it possible to promote a more stable development of agriculture and deliver more grain to the state.

V. Training of Personnel

In order to reform the economic structure of the farms and advance toward the modernization of agriculture, we must have advanced science and technology and personnel mastering this advanced science and technology. By engaging in grain production over the years, the state farms have more people who know about agriculture and farm machinery but very few who are at home with diversified undertakings. Steps must be taken to run

vocational middle schools well in line with the tasks of economic structural reform so as to train up corresponding personnel as quickly as possible and to integrate education with production more closely.

To reform the economic structure, the leadership must change its approach by shifting from concentration on grain production in the past to stressing agriculture, forestry, animal husbandry, sideline production and fishery at the same time and must also make rational readjustments in manpower and financial and material resources. While developing the economy of the state farms and land reclamation, attention should also be directed toward developing commerce and opening up the channels of circulation correspondingly toward combined agricultural-industrial-commercial operations. Only by so doing can the economic results of the state farms be greatly elevated.

12662

CSO: 4007/16

MANAGEMENT, OUTPUT REPORTED IMPROVING ON STATE FARMS

Harbin HEILONGJIANG RIBAO in Chinese 31 Aug 84 p 2

[Article by Yang Rongqiu [2799 2837 4428]: "Heilongjiang's Reclamation Districts Are a Wasteland-Turned-Granary: Arduous Pioneering Work Laid the Foundation, Vigorous Reform Blazes New Paths; These Districts Comprise China's Largest System of State Farms, Possess Over 32 Million Mu of Cultivated Land, Boast a General Mechanization Rate of 90 Percent, Produce 6-Plus Billion Jin of Grain and Beans per Annum and Remit 3-Plus Billion Jin of Grain to the State Each Year"]

[Text] Guided by the spirit of the 3d Plenum of the 11th CPC Central Committee, Heilongjiang's reclamation districts, China's largest and most mechanized system of state farms, have broken free from the fetters of "leftism," explored a developmental path that has Chinese characteristics, displayed incomparable vitality and reached a historic turning point by achieving high yields of the principal crops of grain and beans, changing from single-crop cultivation to diversified farming and progressing from the situation in which losses were frequent to that in which profit now predominates. The "great northern wastes," which the state for 30-some years has made a key point for development, have today truly become the great northern grain basket. By 1983, gross industrial and agricultural output value had increased by 49 percent over 1978, reaching 2.54 billion yuan and lending strong support to the four modernizations.

With a total area of 58,000 square kilometers, Heilongjiang's reclamation districts lie along the frontier extending from the Wusuli Jiang in the east to the Xiaoxingan Ling in the west. Prior to Liberation, this area was a vast wasteland, very sparsely populated and known as the "great northern wastes." In 1947, a system of state farms was established to support the war of liberation. After Liberation, the state, provincial, army and public security systems began running farms in the reclamation districts. Especially important was the arrival of 100,000 demobilized troops commanded by General Wang Zhen [3769 7201], which event greatly accelerated the pace of development in the reclamation districts. Now these districts have been built into the largest state-farm system in China; possess 32 million mu of cultivated land, 20,000-plus large and medium-sized tractors, 12,000-some combines and 150,000 pieces of other types of agricultural machinery; and enjoy a high general mechanization rate of 90 percent in field operations. Nevertheless, the districts have long lacked experience, have blindly copied

foreign state-farm models and have been particularly affected by "leftist" errors. Thus grain and bean yields fluctuated around 200 jin, and the farms usually incurred losses. From 1974 to 1978 alone, there were 4 years of losses, only 1 year showed profits and net losses totaled 470 million.

Following the 3d Plenum of the 11th CPC Central Committee, the reclamation districts summarized their experience and lessons; explored a developmental path for state farms that has Chinese characteristics; carried out a series of economic reforms; broke free from the shackles of complete state ownership and management and of monolithic employment channels and wage scales; organized 95 percent, or more than 50,000, of the workers and staff members to participate in all sorts of contractual arrangements; opened a new road to productive life for 100,000 workers; gave support to 120,000 workers, staff members and their children to engage in collective and individual production; and thus provided new economic impetus to the farms. With the exception of 1981, which experienced a reduction in output and losses due to especially serious waterlogging, the other 4 years between 1979 and 1983 all showed profits for a net gain of 320 million yuan. During each of these 4 profitable years, approximately 6 billion jin in grain and beans were produced, accounting for about one-half of the total produced by all state farms nationally, and more than 3 billion jin were remitted annually, equivalent to approximately two-thirds of the total amount provided by all reclamation districts throughout the nation. In 1983, grain and bean production averaged 252 jin per mu and totaled 6.59 billion jin, and 3.85 billion jin of these crops were remitted to the state for an increase of 15, 36 and 75 percent, respectively, over the levels of 1978 and establishing a new record over that set in 1980. In the same year, 1983, 92 of the 97 state farms in the reclamation districts registered profits, and 12 of these farms doubled their output value during this 5-year period.

The industrial enterprises that primarily serve agriculture and that employ sideline agricultural products as raw materials have also shown great progress. In 1983, 690-odd such enterprises accounted for one-third of the total industrial and agricultural output value of these districts. Among the hundreds of products offered, 30 varieties of dairy goods, candy, canned goods, fruit wines, paper and 6 other types of products were separately rated high-quality by the state, the province and the Ministry of Agriculture, Animal Husbandry and Fishery. In addition, 60-some products have entered the international market and earned 140 million yuan in foreign exchange.

As we prepare to celebrate the 35th anniversary of the founding of the People's Republic, additional victorious news has arrived from the reclamation districts. There has been a bumper wheat crop on 120 million mu, conditions on 15 million mu are gratifying, and the broad masses of workers and staff members are full of pride and enthusiasm and are willing to strive to attain a bumper harvest. These people are determined to accelerate economic reform, further improve the management of state farms, and make even greater contributions to the modernization of China's agriculture.

12431

CSO: 4007/37

HEILONGJIANG

BRIEFS

PADDY RICE PRODUCTION--As of 20 December, Heilongjiang Province had procured and stockpiled over 1 billion jin of paddy rice, an increase of 35 percent over 1959 and setting a record. The per-mu yield of commodity paddy rice was 260 jin. [Summary] [Harbin Heilongjiang Provincial Service in Mandarin 1000 GMT 24 Dec 84 SK]

PEASANTS' DEPOSITS--Peasants' savings deposits in Heilongjiang Province surpassed 1 billion yuan. As of 20 December, peasants' savings deposits across the province reached 1,003.15 million yuan, an increase of 250 million yuan over the corresponding 1983 period, setting a record. [Summary] [Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 25 Dec 84 SK]

WHEAT HARVEST--As of 23 August, 25.5 million mu of, or 87 percent of total area sown to, wheat have already been harvested throughout Heilongjiang, and the prefectures of Songhua Jiang, Nanjiang and Suihua have already completed their harvests. Some prefectures in the southern part of the province have already begun post-harvest field management work. It is reported that fall furrowing, straw collection and stubble plowing are proceeding at a faster pace than last year's and that peasants are showing greater enthusiasm for manure collection, gathering 25 percent more than in the same period last year. Some prefectures recently have experienced numerous rainstorms or heavy rainstorms and thus have suffered damage from flooding and waterlogging, with the crops on some farmland failing entirely. However, crop conditions in most localities are still very good. [Text] [Harbin HEILONGJIANG RIBAO in Chinese 31 Aug 84 p 1] 12431

PEASANT INCOME--A sample survey on the economic situation of 400 peasant families in 14 cities and counties in Heilongjiang Province shows that the average annual per-capita income of peasants in 1984 may reach 386 yuan, an increase of 73 yuan, or 23.32 percent, over 1983. The average annual per-capita income of peasants from family-based production and operations in 1984 may reach 302 yuan, an increase of about 171 yuan, or 130 percent, over 1983. [Summary] [Harbin HEILONGJIANG RIBAO in Chinese 4 Nov 84 p 1 SK]

CSO: 4007/127

PROVINCE USES RADIATION IN SILK PRODUCTION

OW110929 Beijing XINHUA in English 0844 GMT 11 Dec 84

[Text] Zhengzhou, 11 Dec (XINHUA)--Agronomists in Henan Province have successfully applied atomic radiation technology in the preparation of silk cocoons.

Irradiation is more effective than conventional heating and drying method in killing the pupa, according to the local isotope research institute. The method is cleaner and gives a stronger, more lustrous thread with better dyeing quality.

The Henan Provincial Agricultural Research Institute and three college research units have studied the application of radiation techniques over the past 10 years. Work has been done in seed breeding, vegetable storage, soil fertility, insect and disease control and other fields.

New wheat, rice and millet strains developed by using radiation techniques were grown on 1.33 million hectares this year. Output was up by 500,000 tons.

Irradiated potatoes, onions and garlic can be stored for 7 to 8 months without changes taking place in nutritional value or flavor, the research institute reported.

Henan Province is building a processing center in Zhengzhou where 10,000 tons of vegetables will be irradiated annually.

CSO: 4007/127

HENAN

BRIEFS

ZHUMADIAN FLOOD VICTIMS--In mid-December, Vice Governor Hu Tingji led responsible comrades of provincial departments concerned to Zhumadian Prefecture to inspect the counties and townships seriously hit by floods and comfort the victims. He put forward the following demands in light of the existing problems in relief work: Take urgent steps to solve the problems of food, clothing, housing, firewood, and medical treatment for the flood victims. The leaders at all levels must attach a high degree of importance to this now that the weather is bitterly cold. They must guarantee that no one will starve or freeze to death and that there will be no flight from famine in search of food. Launch self-salvation through production and help the masses to develop production opportunities. The cadres at all levels must improve their work style, investigate and study in the villages and households, and promptly solve problems they discover. [Excerpts] [Zhengzhou Henan Provincial Service in Mandarin 2300 GMT 22 Dec 84]

CSO: 4007/138

HOG PRODUCTION, MARKET DEMAND DISCUSSED

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese
No 8, Aug 84 pp 47-49

[Article by Weng Yiran [5040 0076 3544] of the State Auditing Office of the Commercial Trade Bureau: "Develop the Production of Hogs, Meet the Needs of the Market"]

[Text] In the past few years, Hubei Province's total supply of hogs has fluctuated at approximately 5.8 million and the market is tight. What are the reasons? Below I will put forth a few general views concerning this problem by using a survey of my own Jingzhou Prefecture.

I.

Hogs are one of China's important nonstaple foods. Hogs constitute 14 percent of Hubei's total commodity retail sales and account for 11 percent of the total sales of Hubei's agricultural produce and sideline products. Every year approximately 560 million yuan are spent to purchase hogs. Thus, the competent management of hogs is closely related to the promotion of the development of hogs and the improvement of the livelihoods of the people in the countryside.

The key to the competent handling of the supply of hogs is to resolve the problem of the source of hogs. In the past few years, the problem of difficulties in purchasing hogs has appeared in Hubei, and the reason for this is closely related to the slow development of the production of marketable hogs. There are objective factors as well as subjective reasons for this.

From an objective view: first, with the improved situation in the countryside and the rise in the level of the peasants' well-being, the peasants' capacity for food has increased and the amount of food that they have sold to the state has correspondingly decreased. Second, due to irrational pricing policies, the profits that peasants reap from engaging in other production using the same effort, money and time is much greater than that which they earn from raising hogs. Thus, some peasants are unwilling to raise hogs, and a transfer of labor and funds has taken place. Third, in the past, hog purchases were handled by a single channel--food departments. Currently, a few other departments are also engaged in purchases, and on top of that, a number of private butchers are competing with food departments for sources of hogs. This has

also affected the state's source of marketable hogs. Fourth, there have been changes in feed prices: in the past, 1 jin of chaff cost 3 fen and today it goes for 8 fen. The state is also unable to guarantee a supply of rice and other choice feeds at fixed prices. Peasants must mainly depend on the market to purchase rice bran and they complain because they have to buy chaff at a negotiated price and sell hogs at a fixed price, and so they are unwilling to raise more hogs.

From a subjective view: first, a few leaders at the grassroots level have not given enough attention to the development of hog production. They feel that food production is a firm target and that the production of hogs is a flexible target. This wrong thinking also carries with it a lack of effort. A few localities leave gaps in their hog production. For example, a commune in Jianli County had an assigned purchasing task of 13,000 hogs but only produced 9,000 marketable hogs for the year and filled only 73 percent of the plan. Gaps left in production will affect the implementation of the purchasing plan. Some localities set only one comprehensive target for the production of hogs, do not implement a contract responsibility system for hog farms and ordinarily lack the necessary guidance and supervision. Their support of the "two households" is particularly insufficient, to the point where a few assigned purchasing quotas have become mere formalities. Second, leaders do not pay enough attention to feed production. In the past, peasants raising hogs had land in which to grow feed and did not have to pay an agricultural tax in grain. Currently, households that contract to raise hogs are not given land on which to grow feed, and they must pay a grain tax for the land they have. Furthermore, the rewards in grain which they were originally given for raising hogs have been eliminated. On top of this, with regard to feed supply, they have not adopted any policies which make differentiations in price and number that encourage raising and turning over to the state a certain number of hogs, and they have thwarted the enthusiasm of some peasants for raising hogs. Third, the leaders lack a full recognition of the central government's policies toward opening up many channels of management and stimulating the economy. Document No 1 of the CPC Central Committee points out: "We should continue to implement centralized and assigned procurement for a small number of important agricultural products which have a bearing on the national economy and the people's livelihoods, and we should allow many channels of management for the surplus products left over after the peasants have completed their centralized and assigned procurement tasks." This then clarifies the policy of planned readjustments as primary and market readjustments as secondary. A few of our departments, however, do not possess a comprehensive understanding of the essence of this document; they stress the work and ignore the management, and they give rise to chaotic market management and an unchecked spread of illegal merchants. According to incomplete statistics, Jianli County has 260 illegal meat merchants, and in the first 9 months of 1983, they slaughtered 32,000 hogs, equal to 36 percent of the total purchases by food departments and equal to 71 percent of the total sales of meat departments. Fourth, management and administration are substandard and waste is serious. Live hogs are fresh commodities. We must strive for the "four quicks" and keep few hogs in storage. These are important measures for reducing the loss of fat. Currently, such problems as too long a period for raising hogs and too many revolving links still exist in the management of hogs by food departments. This has caused a great waste of hogs. In the first half of 1983, Hubei Province had approximately 8,000 dead hogs, and each hog had shed approximately

7.2 jin in fat. Jianli County in the first 9 months of 1983 had 42,000 hogs, which shed 390,000 jin in fat, and deducting 4 percent for any reasonable loss of fat, 111,000 jin was wasted.

In short, I feel that Hubei is scarce in hogs. This result is comprehensively affected by such factors as a slow development of production, irrational pricing policies for hogs, a lack of effort in the implementation of policies and substandard management and administration.

II.

We must solve the problem of difficulties in acquiring pork in Hubei, and we must place our foothold in developing the production of hogs. With the growth of hogs, the phenomenon of difficulties in purchasing by food departments will be mitigated and the volume of supply to the market will improve. We must promote the development of hog production, and the key is to reform the irrational pricing policies for the purchase and sale of hogs and to comprehend work in the assigned procurement and assigned raising of hogs.

As related above, due to irrational pricing measures, peasants receive very little profit from raising hogs and are unwilling to raise more. We must appropriately readjust the current pricing measures in order to improve the enthusiasm of peasants for raising hogs. Changing prices, however, is a complex and sensitive matter and a slight move may affect the entire situation. Thus, we must be cautious in readjusting prices and carry out the readjustment synchronously with the entire systematic reform. Here I would like to emphasize and discuss the significance of comprehending work in the assigned procurement and assigned raising of hogs as well as other methods.

Comprehending work in the assigned procurement and assigned raising of hogs enables the state to be guaranteed a necessary supply of hogs and to create a base for a supply of hogs to the people of the city and the countryside. This also strengthens the plan for the production, purchase and sale of hogs, ensures stable purchase and sale prices on the rural market, puts an end to the unhealthy tendency of illegal peddlers forcing price hikes and safeguards the interests of the consumers.

First of all, comprehending work in the assigned procurement and assigned raising of hogs solves feed problems. Feed is the food of hogs and is also an integral component of the cost of raising hogs. Whether or not we are able to resolve carefully and skillfully the problem of the sources of hogs directly affects the number of hogs raised and the cost of raising hogs. There are two methods worth advocating for this. First, in the countryside where we are promoting a joint production contract responsibility system, we should appropriately assign land to hog farmers for growing feed and reduce the grain tax on land used to grow feed. This way we can both lighten the load that the state must bear in supplying feed and compel peasants to raise the yield in each unit of area through intensive cultivation, reduce the purchase of feed from the outside and lower the cost of grain. Second, we should strive to develop the local grain industry and solve the problems of insufficient grain and excessive prices. The experiences of a few provinces and cities prove that compound feed is approximately one-third the price of a single type of

feed, which causes the period that the hog is removed from inventory to be reduced by 2 or 3 months. On the average, 100 jin of grain per hog can be saved each year. Hai'an County in Jiangsu Province worked hard to promote compound feed, and the number of pigs removed from inventory rose from 75.9 percent in 1978 to 146 percent, and each person on the average raised more than one hog per year. This clearly is of great significance.

Second, broadly promoting contracts for the purchase and sale of hogs can enable the state purchasing plan to be closely linked up with the feed plans of farmers, and we can then realize the state's guiding plan for raising hogs. Through contracts we can cause the collective economy, in accordance with the needs of the state and in line with local conditions, to determine the plan for raising hogs, decide on the measures for increasing production and ensure the completion of the state's purchasing plan. With the development of rural commodity production and the rise in the income of peasants, the peasants' needs for industrial products are growing, and under the present circumstances of the supply not meeting demand for a few commodities in short supply such as fertilizer and diesel fuel, implementing contracts for purchases and sales and supplying these goods and materials to hog farmers on a priority basis can compel peasants to raise more and better hogs.

Finally, we should strengthen the ideological and political education of the peasants and combine this with material rewards. We must teach peasants to strive to develop hog production, support national construction with even more marketable pigs and supply the needs of the city. We must teach peasants to uphold consciously the rules of market management and purchasing policies and to resist all criminal behavior. We should accomplish this by combining ideological work with economic work and thereby ensure the completion of purchasing tasks.

In paying close attention to work in the assigned procurement and assigned raising of hogs, party and government leaders at every level must put this work on the agenda of the day and must vigorously support and strive to uphold the specialized and priority households that are raising hogs. They must uphold the legitimate interests of the "two households" and give play to their role as a main force in rural hog-raising production.

III.

We must develop production and strengthen management and administration. Currently, the management of the food system is chaotic, there are serious loss and waste and to a certain degree this situation has exacerbated the contradictions of difficulties in purchasing pork and an insufficient supply.

In improving the level of an enterprise's management and administration, it is imperative that we raise the quality of the enterprises' workers. Currently, the problem generally exists of a contingent of cadres and workers that is old, limited and dispersed and with a low level of education. According to a survey, of 47 managers and directors in Jingzhou Prefecture, 42 people, 89 percent, had an education below the junior middle school level. Of these, 23, or 52 percent, have transferred from administrative departments in the past 3 years. Of the 1,323 workers in Jianli County's food industries, 1,152,

or 87 percent, have an education level below the junior middle school level, and 974, or 74 percent, are under the age of 35. Many young workers do not keep their minds on their work, complain about dirt, fatigue and low standards and do not think as though they are masters of their own affairs. This situation is not suited to the needs of the development of the food industry. In the future, on the one hand we must thoroughly carry out a systematic education in communist morality and a "love one's work" education, and on the other hand we must work hard to strengthen cultural, business and technological education, continuously enhance the understanding of policy and improve the business and technological capabilities of the workers and cadres, competently manage the economic responsibility system within enterprises, clearly differentiate between duties, adopt rules we can abide by, encourage those who are advanced, spur on those who lag behind and set up civilized enterprises.

Second, we must change backward purchasing methods. Hubei Province currently employs the purchasing method whereby "the gross weight determines the grade and the number of jin determines the price." This method does not differentiate between the quality of hogs and does not differentiate between the number of hogs removed from inventory but generally determines the grade according to weight and compels peasants to sell their pork bellies, thus both increasing the total weight and raising the grade. The state suffers a great loss. I feel that we must change to the method of "the number of hogs taken out of inventory determines grade and the number of jin determines the price." This method can reflect the policy of high quality at excellent prices and can encourage peasants to sell big porkers. This is fair and reasonable for both the state and the peasants.

Third, we must thoroughly comprehend commodity laws and improve management styles. The loss of fat through the death of hogs is an outstanding problem in the management of hogs. Hog production is dispersed, collection and transfer are centralized and in management the consciousness of policy, planning and technology is fairly strong. In organization and planning we must earnestly achieve few links, speedy allocation and transport, careful nurture and high quality and thereby reduce the losses through the loss of pork fat from dead hogs.

Fourth, we must strengthen and consolidate the accounting work of enterprises. We must establish and perfect an economic accounting system, strengthen budget planning and cost accounting and reflect the management results of enterprises in strict accordance with the facts. Leaders at all levels must work hard to support accounting work, strengthen accounting organizations and personnel, compel accounting personnel to act with authority in their positions and give full play to the advisory role of accounting work in economic work.

Fifth, we must strengthen market management. All industrial and commercial administrative departments as well as other relevant departments must carry out a consolidation of the existing market, resolutely ban illegal meat stalls and strictly forbid butchers to go from rural brigades to households which have not completed their assigned purchasing tasks for the state in order to purchase hogs and so ensure a steady source of hogs to the state. At the same time, food departments, based on market demands, must actively develop negotiated-price management and commission sales for butchers and invigorate the market. They can then stabilize the market, keep down prices and uphold the interests of consumers.

HUBEI

BRIEFS

RAT-KILLING DRIVE--Yesterday evening, the Hubei Provincial CYL Committee, the Provincial Patriotic Public Health Campaign Committee, and the Provincial Agriculture and Animal Husbandry Department jointly held a telephone conference to mobilize all young people and juveniles throughout the province to launch a winter rat-killing drive. Li Fuquan, vice chairman of the Provincial People's Congress Standing Committee and chairman of the Provincial Patriotic Public Health Campaign Committee, presided over the conference. Vice Governor Wang Hanzhang spoke at the conference, urging governments at all levels to strengthen leadership and to mobilize the masses to launch the rat-killing drive. (Chen Chunlin), secretary of the Provincial CYL Committee, and (Xie Tiesheng), deputy director of the Provincial Agriculture and Animal Husbandry Department, also spoke during the conference. [Summary] [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 11 Nov 84 HK]

CSO: 4020/46

VICE GOVERNOR INTERVIEWED ON RURAL REFORMS

HK080336 Changsha Hunan Provincial Service in Mandarin 1100 GMT 7 Dec 84

[Excerpt] Vice Governor Cao Wenju said when interviewed by a station reporter on 3 December: The key to readjusting the rural production structure lies in doing a good job of comprehensive reform of the economic system at county level.

Vice Governor Cao said: Giving free rein to readjusting the rural production structure and striving for specialization, commodity production, and modernization in agricultural production is much more difficult than popularizing the contract responsibility system with payment linked to output. It involves readjustment of the economic setup, and requires rational and efficient circulation channels and the establishment of a service system for all work before, during, and after production.

The county is the coordination center of urban and rural economy. It is both a leading organ and also a grassroots unit. It is a complete rural economic entity. Readjusting the rural production structure is not something that can be achieved by one household or a combine of some specialized households, nor is it a problem that can be solved by township or town reforms. It is imperative to carry it out on the scale of an entire county. Hence, reforming the entire economic structure at county level is the most urgent and important thing for readjusting the rural production structure.

Vice Governor Cao said: In launching all-round reform of the county-level economic structure, it is necessary to do a good job in planning, coordination, and supervision. We must unhesitatingly change the past methods of relying on administrative orders and measures to manage the economy. Instead, we must use economic methods.

Vice Governor Cao said: Judging by the experiences of three reform pilot project counties--Hengdong, Huarong, and Yuanling--the county level must grasp three main reforms in readjusting the rural production structure and developing commodity production:

1. Streamline the administration and delegate powers. The county administrative organs must be streamlined, and the economic management departments must be strongly comprehensive. Grassroots enterprises, undertakings, and units should be regarded as an independent economic entity and given full decisionmaking powers.

2. Separate government administration from enterprise management. Lack of separation in this respect is a major defect in the current economic management system. Some departments are both administrative and management departments and also enterprises and units. This state of affairs does not help to bring into play the positive factors of flexible enterprise operations, nor does it benefit readjustment of the rural production structure.

3. Strengthen socialized services and set up a service system for all work before, during, and after production.

CSO: 4007/127

HUNAN

HUNAN RADIO STRESSES AGRICULTURE AS FOUNDATION

HK230615 Changsha Hunan Provincial Service in Mandarin 1100 GMT 22 Dec 84

[Station Commentary: "Take Practical Measures to Grasp Agriculture, the Foundation"]

[Text] Linli County has devoted efforts to grasping agriculture, the foundation, to create conditions for economic take-off. This is in full conformity with our national condition and with the laws of macroeconomic development.

In the past we simply understood agriculture as the foundation from the angle of regarding food as the most important thing. This was very essential in the historical conditions of the time, since it aimed at solving the peasants' food and clothing problem. In recent years, the rural areas have practiced responsibility systems, the peasants' production enthusiasm has been enhanced, and the problem of food and clothing has been basically solved. However this certainly does not mean that agriculture--the foundation--does not need strengthening or is even unnecessary. China is a big country with 1 billion people. The question of food cannot be neglected at any time. In particular, the rural areas are the production bases of many industrial raw materials and extensive markets for sales of industrial products. At present 70 percent of the raw materials for China's light industry come from the rural areas. If we fail to strengthen agriculture--the foundation--many industries will fall into a state of cooking a meal without rice, while large numbers of industrial goods will be unsaleable, and industrial production will wither. How then could the vast goal of doubling annual output value be attained?

We should in particular note that at present the leading comrades in certain places in Hunan lack correct understanding of agriculture as the foundation. They think that so long as rural industry and commerce thrives, the goal of doubling has been attained. Under the dictates of this idea, they talk little about next year's agricultural production and have not grasped it effectively. Winter production and water conservation construction work are still going very slowly, with no momentum. Big mistakes will be made if this state of affairs continues.

We fervently hope that everyone will gain enlightenment from Linli County's experiences. While restructuring agricultural production next year, they should take practical and effective steps to get a good grasp of agriculture as the foundation.

CSO: 4007/138

HUNAN

BRIEFS

AGRICULTURAL ZONING SCHEME--After more than 5 years, results have been produced in the study for Hunan's comprehensive agricultural zoning. These results were technically appraised yesterday. The study was undertaken by the provincial agricultural natural resources and agricultural zoning comprehensive research center. On the basis of previous investigations of agricultural resources and agricultural zoning work, the center divided the province into six comprehensive agricultural zones, and organized investigation and study of the province's grain, cotton, ramie, tangerines, sugarcane, and other crop structures. After making an all-round and systematic analysis and evaluation of the province's agricultural production conditions, the center decided that the orientation for agricultural development in the province should be as follows: Make rational use of agricultural resources; develop agricultural production in an all-round way; gradually readjust the structure and mix of agricultural production; consolidate the superior features in grain and pig production; develop raw material production for the foodstuff, light, and textile industries; and set up commodity production bases. [Text] [Changsha Hunan Provincial Service in Mandarin 0100 GMT 26 Dec 84]

CSO: 4007/138

BRIEFS

BUMPER HARVEST--Nanjing, 11 Dec (XINHUA)--Jiangsu Province has reaped a bumper harvest again this year. For the first time, the average grain output per person has exceeded 1,000 jin. According to the provincial statistical bureau's initial statistics, the total grain production in the province this year is estimated at about 66 billion jin, a big increase over 1983, which was the highest production year in the past. This year, Jiangsu's total production of ginned cotton is close to last year's level, which was the highest in history. Production of oilseeds this year has declined, but the output of aquatic products, silkworm cocoons, and tea, and the number of domestic fowl raised have all increased in varying degrees. [Excerpts] [Beijing XINHUA Domestic Service in Chinese 0811 GMT 11 Dec 84 OW]

CSO: 4007/127

JIANGXI

BRIEFS

LIVESTOCK MEETING--(Fang Ai), a reporter of this station, has learned of the following information from a forum appraising Jiangxi's animal husbandry development plan, held by the Jiangxi Provincial Department of Agriculture, Animal Husbandry and Fishery: In the course of readjusting the agricultural structure and actively developing a diversified economy during the seventh 5-year plan period, Jiangxi Province will place animal husbandry in a prominent position, take advantage of Jiangxi's superior features, and simultaneously develop the breeding of pigs, cattle, sheep, chickens, ducks, geese, rabbits, and honey bees. Zhao Zengyi, secretary of the provincial party committee and governor of Jiangxi, attended and addressed the meeting. [Excerpts] [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 20 Dec 84]

AGRICULTURAL PRODUCTION--Jiangxi's total grain output this year has reached 30.5 billion jin, topping that of last year by 4.4 percent. This year, the acreage for various types of economic crops, such as cotton, oil-bearing crops, sugar cane, jute, tobacco, tea and others, is 900,000 mu larger than that of last year. This year, Jiangxi planted 230,000 mu of corn, or 120,000 mu more than last year. [Summary] [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 11 Dec 84 OW]

TEA-SEED OIL--Nanchang, 12 Dec (XINHUA)--Jiangxi's tea-oil trees have yielded 47 million jin of tea oil this year, an increase of 14.67 percent over the figure for 1983. [Summary] [Beijing XINHUA Domestic Service in Chinese 0244 GMT 12 Dec 84 OW]

CSO: 4007/127

BRIEFS

WHEAT PRODUCTION TARGET--The following characteristics have cropped up in wheat production undertaken by Liaoning Province during the past 35 years, since the founding of the PRC: Wheat crop acreage has become smaller and smaller; per-unit yield of wheat has become higher and higher; and total annual output has never been high. Thus, the people's difficulty in obtaining food flour has not been dealt with well. In the 1950's, the province's average wheat crop acreage was 1.577 million mu; the average per-unit yield, 79 jin; and the average total output, more than 124 million jin. In 1983, the wheat crop acreage was 320,000 mu; the per-unit yield of wheat, 278 jin; and the total output of wheat, more than 88 million jin. Because of the growth of the population and the increase of necessary volume, the per-capita consumption of wheat turned out by the province is only 3 jin. In line with the statistical figures mentioned above, the province plans to increase its wheat crop acreage in the future to about 3 million mu, and its per-unit yield to 600 jin in order to meet the steadily increasing needs of the people. [Summary] [Shenyang LIAONING RIBAO in Chinese 17 Nov 84 p 2 SK]

GRAIN SHIPPING WORK--Dalian City, Liaoning Province, has prefulfilled the task of transporting Jilin Province's 536,000 tons of corn to the southern parts of China. [Summary] [Shenyang LIAONING RIBAO in Chinese 20 Nov 84 p 1 SK]

CSO: 4007/127

BRIEFS

GRAIN PRODUCTION--By 5 December, Nei Monggol had procured 2,054,430,000 jin of grain and 376,820,000 jin of oil-bearing seeds, overfulfilling the procurement quotas by 4.43 million jin and 13.82 million jin, respectively. Of the procured grain, 828.1 million jin was wheat. The quality of procured grain and oil-bearing seeds is generally better than in previous years. [Summary] [Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 8 Dec 84 SK]

TOWN ENTERPRISES--Town- and township-run enterprises in the Nei Monggol Region have become the pillar of the region's agricultural and livestock economy.--Since 1978, total output value of the region's town- and township-run enterprises has increased at an average annual rate of 10 percent. In 1984, their total output value reached 670 million yuan, 80 million yuan more than the planned target. At present, there are 15,200 township- and village-run enterprises in the region, with a total staff of 242,000 people. [Summary] [Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 23 Dec 84 SK]

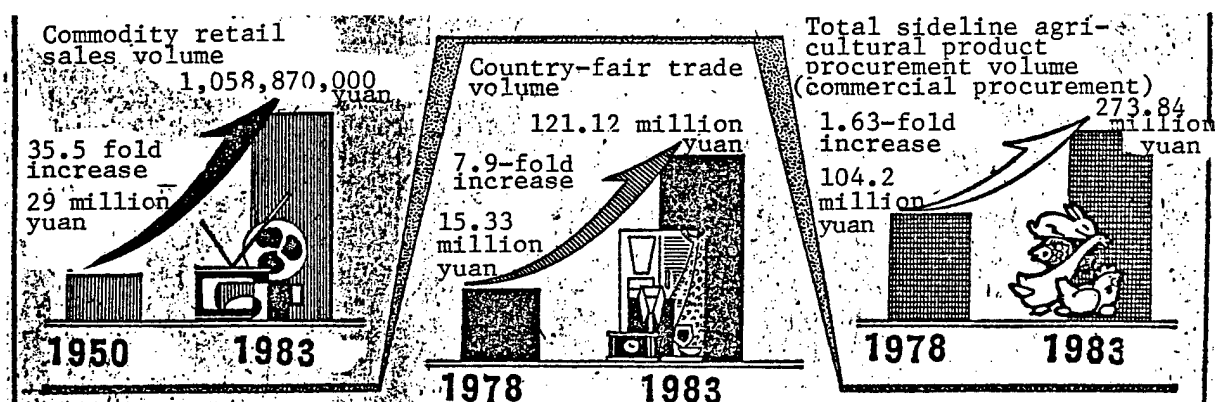
CSO: 4007/138

GRAPH OF 1983 TRADE STATISTICS

Yichuan NINGXIA RIBAO in Chinese 25 Sep 84 p 1

[Ningxia Statistics Bureau]

[Text] The Booming Market and Brisk Trade in the Ningxia Hui Autonomous Region



12431
CSO: 4007/37

LIBERALIZATION, IMPROVEMENT OF GRAIN MARKETING ADVOCATED

Yichuan NINGXIA RIBAO in Chinese 25 Sep 84 p 1

[Interview with Cai Zhulin, member of the Standing Committee of the Ningxia Party Committee and director of the Guidance Commission on the Rural Cooperative Economy, by NINGXIA RIBAO reporters: "Liberalize Policy, Open Up the Market, Expand Consumption and Enliven the Economy; Grain Departments Must Broaden Procurement of the Excess Grain Offered by Peasants"; date and place not specified]

[Text] Reporters of this newspaper recently went to interview Comrade Cai Zhulin [5591 4554 2651], member of the Standing Committee of the Ningxia Party Committee and Director of the Guidance Commission on the Rural Cooperative Economy, regarding the problems of grain production, procurement and storage. Comrade Cai provided the following discussion.

Comrade Cai stated, "In the past few years, conditions on Ningxia's grain front have been excellent, with grain output and the grain marketing rate registering large increases and procurement and storage in general also doing very well. In 1983, total grain output reached 2.9 billion jin, the surplus was purchased and sold off, and storage increased. This year, it is estimated that production will top 3 billion jin, and thus surplus sales and storage will rise greatly. This, the best situation we have encountered since Ningxia was liberated, is the result of the CPC Central Committee's liberalization of all policies relating to the rural economy and represents the fruits of the common efforts of cadres at all levels, the broad masses of peasants and grain-front workers through the autonomous region."

Comrade Cai stated: "The increase in grain output and storage provides Ningxia with an important material guarantee and thus is a very good thing. Nevertheless, this increase has also brought with it some problems that require immediate resolution, the most salient of which are the difficulties that peasants face in selling grain and that the state confronts in storing that produce. Besides the state grain agencies' lack of storage capacity, the root cause of these problems is the irrationality in Ningxia's rural productive structure: the development of animal husbandry and food processing has been sluggish, and the channels of grain circulation have not been invigorated and thus do not meet the needs of grain-output expansion. These

are temporary difficulties that have cropped up during our march forward. Consequently, each locality urgently must further liberalize policy concerning grain management, in addition to further readjusting and rationalizing the rural productive structure and accelerating development of animal husbandry and food processing according to actual conditions. First, grain agencies must give fuller play to their roles as the primary channel of grain circulation so as to effectively preserve and encourage peasant enthusiasm for the expansion of grain output and to further increase productivity and the marketing rate. If, after fulfilling basic requisition quotas, peasants desire to sell more self-produced grain, grain agencies must accept, pay surcharges for, and broaden procurement of such produce so long as it meets the state's standards. These agencies must tap potential, set up as many outlets as possible, expand storage capacity and practically resolve the peasants' difficulties in selling grain. The mountainous districts have enjoyed 2 straight years of bumper harvests. In view of the fact that the present policy is not to requisition grain, that production is unstable and that bumper harvests and crop failures occur in an unbalanced fashion, surplus self-produced grain beyond peasant ration and production needs should be used primarily for storage, processing and developing animal husbandry and other such industries. And if peasants demand to sell grain to the state, grain agencies must expand procurement and provide extraquota price subcharges therefor. Prices may also be separately set for oil crops that have been withdrawn from the system of centralized procurement.

"Second, we must develop multichanneled grain management. While the state continues to carry out procurement, we should also open up the grain market and permit state-run commercial enterprises, supply and marketing cooperatives, other rural collectives, and individuals to enter the sphere of oil-crop circulation. These entities should be allowed to undertake procurement and to encourage long-distance transport and sales, and they should not be subject to limitations on site or quantity. Agencies in charge of transport, banking, tax collection and industry and commerce should render vigorous support to collectives and individuals engaging in long-distance transport and sales of oil crops. People who handle grain that is subject to multichanneled management or that enters Ningxia from other autonomous regions and provinces should be permitted freely to sell the commodity on the market so as to adjust supply.

"Third, we must aggressively develop the food-processing industry. In processing oil crops and foodstuffs, we must also adopt a multichanneled and multileveled approach incorporating state agencies, collectives and individuals. Grain departments must practically shift from a 'control' to a 'managerial' approach; stress the development of oil crops and foodstuffs as a primary task; vigorously expand production and management of foodstuffs, nonstaple foods and prepared foods that are made from wheat, beans and oil crops; and effectively handle refined and crude processing of grain crops. To improve market supply of nonstaple foods, we must steadily increase the number of goods that are not subject to rationing and that are sold through negotiated prices. Byproducts of oil crops and nonstaple foods can be supplied either through rationing or through negotiated pricing, and managerial approaches should be flexible and varied so as to make things convenient for the masses.

"Fourth, we should energetically support the development of the rural feed industry. Financial and grain agencies must adopt policies that provide more preferential treatment in this area. The Ningxia party committee and people's government have already assigned special targets for crops that are to be used exclusively as circulating grain and for compound (mixed) feed so as to develop the rural feed industry and promote the expansion of animal husbandry and other breeding industries.

"Fifth, we must devise a variety of ways to overcome the shortage of storage capacity. With the expansion in grain output, the storage problem inevitably will become more prominent, and it is not practical to rely solely on the state to invest in and build new storage facilities. All sectors--the state, the collective, and the individual--should finance and build granaries, and whoever does so should retain the profits therefrom. We should call upon and organize the masses to store grain for the state, and we should vigorously establish service stations that function as agencies for grain collection and storage and households specializing in grain storage. We should expand storage capacity by making full use of suitable buildings belonging to collectives. This work should be undertaken by grain agencies, and governments at all levels, village residents' committees and production teams (production cooperatives) should take the initiative to cooperate with these agencies and conscientiously effect this work. In carrying out this work, we must establish plans so that each level fulfills its tasks, effectively help peasants to resolve the problems of grain storage and set reasonable remuneration for these tasks."

At the end of our interview, Comrade Cai stated: "Each locality must effectively strengthen grain-work leadership. We must recognize that the level of Ningxia's grain production is still not very high, that a large gap persists between mountainous areas and river valleys, that grain production still does not meet the needs of the growth of the national economy and especially of the animal husbandry industry, that the grain problem remains a matter of prime importance to economic development, that grain work still forms a crucial task for each level of the party and the government and that we therefore must by no means slacken our efforts. I suggest that the comrades in charge of agricultural, financial and trade work in each prefectural, city and county party committee and government devote great effort to improving grain work and, in accordance with the spirit of the Central Committee's relevant directives and while steadily and rationally readjusting the rural productive structure, further liberalize policy; open up the market; expand consumption; invigorate management; conscientiously study and summarize the new conditions and experiences in the management of grain production and the masses' involvement in the transport, sales and storage of grain and oil crops; dare to reform; and enliven and improve the work on the grain front."

12431

CSO: 4007/37

CIRCULAR ISSUED ON PRICING LIVESTOCK

HK160410 Xining Qinghai Provincial Service in Mandarin 1100 GMT 12 Dec 84

[Excerpts] On 27 November, the Qinghai Provincial CPC Committee issued a circular on pricing livestock when it is sold to households in pastoral areas.

The circular points out: While pastoral areas are adopting the forms of pricing livestock when it is sold to households, of private ownership, of private breeding, and of independent management, which are to remain unchanged for a long time, they must correctly grasp the principle of pricing livestock when it is sold to households and must reasonably fix the standard of pricing. In pricing livestock when it is sold to households, it is necessary to adhere to the principle of fixing prices in accordance with the costs, with little readjustment. In general, we must take the number of livestock at the time of implementing the all-round contract system, as the base and we can make partial readjustments in accordance with the number of people of all households, the number of laborers, the ability of management, and the good or bad situation of grazing land. Regarding the standard of pricing livestock, we must adhere to the principle of pricing in accordance with the classifications, grades, and quality of livestock. We must reasonably fix the prices of livestock. Prices can be lower than the current state procurement prices but cannot be lower than the summer prices of livestock. In general, it is unsuitable to fix a unified price applicable over a large area. We must pay attention to preventing the situation in fixing too high or too low a price.

Regarding the other property of the collectives, we must seriously take stock of it, register it, and keep records. The price of property suitable for public use, can be fixed when it is sold to households. Regarding production facilities of collectives or those jointly run, a household can contract to run them, or households can jointly run them. These facilities can still be run by collectives.

It is essential to control and spend well money deriving from the sale of livestock. On the basis of clearing the debts of collectives and individuals, in accordance with the local situation in the development of production and with the masses' ability to pay debts, the period of payment must be reasonably fixed and contracts must be signed to ensure the payment of debts on schedule. Money derived from the sale of livestock and original provident funds can be used to develop production or intellectual resources but cannot be spent bonuses,

cadre subsidies, living expenses, or rather nonproductive expenses. No units are allowed to appropriate it without authority or to misappropriate and privately share it. It is imperative to vigorously do well in fixing the power of using pastures and to further perfect the system of contracted responsibilities. The obligations of collectives and the masses which both of them should assume must be defined in the form of a contract, and they must guarantee to fulfill these obligations.

The circular demands: After we adopt the forms of pricing livestock when it is sold to households, of private ownership, of private breeding, and of independent management, which are to remain unchanged for a long time, we must continue to put cooperative economic organizations in pastoral areas on a sound basis and develop them. We must continue to strengthen guidance for scientific livestock-breeding.

CSO: 4007/127

BRIEFS

GOOD HARVEST--An all-round good harvest in agriculture has been achieved in our province this year. The output of grain, oil-bearing crops, cured tobacco, and tea have all exceeded the records. The production of cotton has increased 74 percent compared with last year. These achievements have resulted from extending the contracted period of land to 15 years in accordance with the spirit of Document No 1, the popularization of good species and agricultural farming techniques, the active construction work of water conservancy, and the increase of irrigation facilities. The grain output of our province is in excess of 20 billion jin, an increase of 4.2 percent over last year, which was a bumper harvest year. The increase in output of oil-bearing crops, cured tobacco, and tea is 9 percent, 80 percent, and 9.3 percent respectively when compared with last year. [Summary] [Xian Shaanxi Provincial Service in Mandarin 1130 GMT 9 Dec 84 HK]

FRUIT COLD STORAGE--Xian, 12 Dec (XINHUA)--A cold storage for 7,000 tons of fruit--the largest in China--was officially put into use today in Xian, capital of Shaanxi Province, northwest China. The 6.2 million yuan (about 2.2 million U.S. dollars) project is expected to boost the province's fruit production, officials here say. Shaanxi is a major fruit exporting province. [Text] [Beijing XINHUA in English 1508 GMT 12 Dec 84 OW]

CSO: 4007/127

BRIEFS

UNDERGROUND RESERVOIR IN JINAN--Jinan, 30 November (XINHUA)--Geologists have found a large underground reservoir 20 kilometers west of Jinan, capital of Shandong Province. Drilling is being carried out over an area of 50 square kilometers. One of the 12 wells already drilled there now produces 15,000 cubic meters of water a day. Jinan was once called the "city of springs" for its 72 springs. But the springs dried up from March to July each year for the past 10 years due to excessive use by the area's growing industry and agriculture. The discovery of the reservoir can reduce water exploitation in the city proper and restore year-round flows to the springs, geologists said. Scientists are also exploring for more resources over an expanded area around Jinan. [Text] [Beijing XINHUA in English 1200 GMT 30 Nov 84 OW]

WATER CONSERVANCY--This winter, Shandong Province scored great achievements in construction of water conservancy works. Thus far, the province has started some 30,800 water conservancy works in all, completed 16,657 water conservancy projects, expanded and improved 1.691 million mu of irrigation areas, harnessed 140,000 mu of saline-alkali and waterlogged areas, increased 300 square meters of water and soil conserved land, and found 7.798 million mu of level land. [Summary] [Jinan Shandong Provincial Service in Mandarin 2300 GMT 21 Dec 84 SK]

COTTON PRODUCTION--By 4 November, Shandong Province had procured 18.54 million dan of cotton, overfulfilling the state-assigned task by 3 percent and increasing the quantity by 1.54 million dan over that procured in the same period last year. [Excerpt] [Jinan DAZHONG RIBAO in Chinese 6 Nov 84 p 1 SK]

CSO: 4007/127

SHANGHAI

BRIEFS

WATER DIVERSION INCREASES SUPPLY--Shanghai, 29 November (XINHUA)--In 3 years or so from now six million Shanghai inhabitants will have new drinking water relatively free from industrial pollution. The city will begin early next year building a 43-kilometer canal to divert about 1.57 billion cubic meters of water from the upper reaches of the Huangpu River. The city's daily water supply will increase from 3.3 million to 4.3 million cubic meters when the project is ready late in 1987. This will be the greatest water-diversion project ever for a Chinese city. The project will also include an up-to-date filtration plant. At present, the city's main source of water, the middle and lower reaches of the river, is polluted by factories. [Text] [Beijing XINHUA in English 1036 GMT 29 Nov 84 OW]

CSO: 4020/46

SHANXI

LI LIGONG SHOWS CONCERN FOR VILLAGE WATER SUPPLY

SK130515 Taiyuan SHANXI RIBAO in Chinese 27 Nov 84 p 4

[Text] On 26 October, Li Ligong, secretary of the provincial CPC committee, commented on a letter from the masses of Tuanshuitou village, Linxian County, which was published in a restricted publication of this newspaper (see article entitled "Return Water Sources to Us" in the special column "Letters From Readers" in the 6 November edition of this newspaper) and instructed Xing Deyong, secretary of the Luliang Prefectural CPC Committee, and Li Hongxing, commissioner of the prefectural commissioner's office, to read and handle it. He pointed out: "The masses' water supply must not be stopped because of coal mining. This problem should be solved quickly and properly." Comrade Li Hongxing immediately sent people to investigate and handle this problem.

There used to be a stream of spring water in Tuanshuitou village that had never stopped, a spring on which the village's 15 units, some 1,850 people, and 48 draught animals lived. However, the spring water stopped all of a sudden on 26 November of last year. According to comrades of a geological team from the provincial Geological and Minerals Bureau, who conducted a survey, "the stoppage of the spring water in Tuanshuitou has something to do with mining at the Dujiagou colliery." Because this problem could not be solved properly, the masses of Tuanshuitou village sent representatives to deliver a "letter of urgent appeal from more than 2,000 people" to this newspaper.

According to experts of the geological team, Tuanshuitou's deep karst has abundant water resources of good quality, which will not be adversely influenced by the mining of the Dujiagou colliery. They suggested that a well 300 meters deep be sunk. The Linxian County government adopted this suggestion and decided to deliver water to the masses with tractors before the well is sunk and to supply water to the masses free of charge after the well is sunk. The well has been sunk for 50 meters thus far. The water supply problem of the people of Tuanshuitou village will be solved properly very soon.

CSO: 4007/127

ADVANCES IN WATER CONSERVANCY REPORTED

Chengdu SICHUAN RIBAO in Chinese 7 Sep 84 p 1

[Article by the Report Group of the Sichuan Department of Water Conservancy and Power: "Sichuan Achieves Outstanding Success in Water-conservancy Development: Large-scale Construction of Water Conservancy Works Since the Founding of the People's Republic Has Increased the Effective Irrigated Area From 8 Million Mu in 1949 to the Current 45-plus Million Mu; More Than 500 of the 747 Sites Managed by the State Already Operate in the Black"]

[Text] Since the founding of the People's Republic, Sichuan has constructed 360,000-plus water-conservancy works of various types, including more than 12,000 reservoirs, which have a total storage, channeling and drawing capacity of 21.2 billion cubic meters. The effective irrigated area has increased from 8.68 million mu in 1949 to the current 45.79 million mu and accounts for about one-half of the province's total cultivated area.

Reknowned as "the province of a thousand rivers," Sichuan has 1,380-plus rivers of various sizes, in addition to the Chang Jiang, which traverses the breadth of the province. Moreover, since the basin's rainfall is abundant, the vast majority of these waterways do not dry up throughout the year. Prior to Liberation, however, the province's water resources were not exploited very well, and thus many areas suffered frequent drought and flooding. After Liberation, large-scale water-conservancy construction provided the farmland of many areas with assured sources of necessary irrigation-water, transformed 20-plus million mu of land that was dependent on snow melt-off and expanded the area sown to small-spring crops. Mountain valleys such as Zhongjiang, Santai, Renshou, Jianyang, Hechuan and Pengxi, which formerly were impoverished, "experienced crop failures 9 years out of 10 and whose water was dearer than oil," have obtained the water needed for production and domestic use and undergone a major change in appearance due to the construction of such large and medium irrigation works as Heilongtan, Sancha and Luban. While building such facilities, localities have also constructed 18.3 million kilometers of dikes along major waterways so as to improve flood prevention and protect cities, towns and farmland that are located on riverbanks. In 1981, many areas in Sichuan suffered the worst rainstorms and flooding in a century. But the many water-conservancy works detained the flood water and, together with the other flood-prevention facilities, greatly reduced damage and loss.

Water-conservancy construction has also stimulated the development of small-scale hydroelectric facilities and created the conditions for rural electrification. A mere 1,356 kilowatts in 1949, the installed capacity of small-scale hydroelectric stations has now topped 1 million kilowatts. County after county has established such stations, and two-thirds of all counties in the province now rely on such stations for electric supply. The large and small reservoirs built by local areas comprise a large water-surface area and thus have presented conditions conducive to the development of fishery. In the past 5 years, production of adult fish has steadily increased, last year 1.6-plus dan of fish were marketed and Lu, Kai, Dazu and six other counties each produced more than 3 million jin of adult fish per annum. The increase in water-conservancy installations also provides industry and the people with a reliable supply of water. The Dujian Weir alone supplies Chengdu with 1 billion cubic meters of water. The construction of such facilities and power stations along major rivers usually involves large dams and ship locks, which turn rivers into canals, increases waterway depth and thus facilitates the development of shipping.

Under the guidance of the CPC Third Plenum, water-conservancy agencies at all levels have in the past few years placed great emphasis on management work, introduced comprehensive management and greatly improved economic results. Five hundred fifty-nine of the 747 water-conservancy sites run by the state have achieved self-sufficiency in funding, earning a total income of 42.84 million yuan last year.

12431

CSO: 4007/37

DEVELOPMENTS IN PIG PRODUCTION INDUSTRY

Pig Breeding Encouraged

HK241341 Beijing RENMIN RIBAO in Chinese 22 Dec 84 p 2

[Report by Huang Wenfu [7806 2429 4395]: "Pig Breeding Develops Rapidly in Sichuan"]

[Text] At present, Sichuan Province supplies 1,200 metric tons of pork for Beijing, Tianjin, Shanghai and 15 other provinces, municipalities, and regions every day. This year, the province will have supplied 3.6 million pigs to other areas, 71.4 percent more than the greatest annual supply of pigs it provided in the past. This year, there is 45 jin of pork for each person in Sichuan Province, ranking first in the whole nation. There is an unlimited supply of pork at stable prices in the urban and rural market in the province. This is the consequence of Sichuan's vigorous development of pig breeding.

Since 1977, Sichuan has continued to increase its output of pigs year by year. By the end of this year, the number of pigs on hand will rise to 55 million, the number of pigs consumed will total 38 million, and the output of pork will be 4.5 billion jin. The above three figures and the rate of the number of pigs consumed, the average weight of the pigs and the number of sows are all greater than those for last year. Now, there are over 4 million sows in the whole province. The price of piglets is rising and it is estimated that the pig breeding industry will continue to develop next year.

The leading groups at all levels in Sichuan Province pay attention to developing the pig breeding industry, regard it as a major advantageous factor in the agriculture of the province and encourage the development of pig breeding by their policies and measures. They have refrained from forcing pig prices down, suspending purchases of pigs, restricting development of the pig breeding industry, or changing the policy of giving awards for pig sales even though there are sometimes "difficulties in selling pigs." The province has switched from the practice of only the state-run commercial sector dealing in pigs into that of allowing diverse sectors to deal in pigs. It allows peasants to kill and sell their extra-quota pigs, allows individual traders to deal in pork, allows peasants to set up sole-proprietor or joint-venture slaughterhouses and butcher's shops and encourage peasants to kill their pigs and sell the pork in urban areas. There were many restrictions on pig

breeding in remote mountainous areas in the past, but now the province has stipulated that in the vast eastern Sichuan mountainous area more than 800 meters above sea level, quotas on pig sales will no longer be imposed, and that the food departments should not refuse to buy the pigs that the peasants are willing to sell them.

Integrated application of modern pig breeding technology and the vigorous popularization of technology in the manner of providing fixed output service and by means of undertaking responsibility for technological services by contract is also an important factor in continuously increasing Sichuan's pig output. The provincial animal husbandry department has achieved satisfactory results in popularizing scientific methods of pig breeding including the methods of feeding piglets with fine food, hybridizing pigs for commercial purposes, feeding pigs with raw, mixed, and processed foods, and enabling pigs to grow quickly. Last year, the provincial pig breeding research institute and the Chongqing Beibei animal husbandry veterinary station signed contracts with 15,000 peasant households to undertake the responsibility for teaching them comprehensive scientific methods in breeding 40,000 pigs. As a result, the pigs became fully grown 4-6 months ahead of schedule and the income per pig increased 29 yuan on average. This year, the methods of feeding piglets with fine food and hybridizing pigs for commercial purpose have been popularized in 27 counties in central Sichuan and this will increase peasants' income by 60 million yuan.

The development of the pig breeding industry has facilitated the transformation of large amounts of food grain into pork. Since the beginning of last year, Sichuan has realised over 10 billion jin of grain in pig breeding, which accounts for over one-eighth of the province's gross grain output.

Pig Production Decline Reversed

HK241345 Beijing RENMIN RIBAO in Chinese 22 Dec 84 p 2

[Report by Jia Jianzhou [6328 1696 5297]: "Shandong Pig Production Rises From Decline"]

[Text] There has been an upward trend in Shandong's pig production. According to estimates of relevant departments, at the end of this year, the number of pigs on hand will rise to 15,894,000 and the number of pigs slaughtered will be 11,946,000, an increase of 1.7 and 3.1 percent respectively over last year. Since last winter and spring, in order to put an end to years of falling pig production, Shandong Province has adopted a series of measures related to its policies. For example, last spring, Yantai City announced to the peasants that it would resume the practice of giving peasants land for growing grain as food for pigs, implement the policy of imposing pig sale quotas, allocate some funds for improving the pig breeds in the area and for subsidizing pig breeding households and help specialized households develop the pig breeding industry by means of providing funds, materials and goods, and technological and vaccination services. By so doing, it has heightened the peasants' initiative in breeding pigs. This year, the number of pigs on hand in Yantai City is 9.9 percent more than that last year.

In many areas in Shandong, the policy of allowing two sectors to deal in business related to pigs is being implemented. These areas give a free hand in developing individual butcheries and thus effectively enlivened circulation. The butchers who are operating actively in various areas purchase pigs and kill them and sell the pork where the pigs are purchased. This has not only solved the problem of peasants finding it difficult to sell pigs, but has also solved the problem of the shortage of pork supply. Through developing two sectors to deal in business related to pigs, Feicheng County has brought about vigorous development of the pig breeding industry. This year the county has supplied 21 percent more pigs than last year.

The bumper harvest of grain in Shandong Province has provided sufficient cheap food for the development of the pig breeding industry. Linyi Prefecture has used this advantageous factor to guide the peasants in developing pig breeding and has thus sharply increased its pig output year by year. This year, the number of pigs on hand in the prefecture has risen to over 3.75 million, 4.9 percent more than the highest figure in the past.

The various areas have also paid great attention to popularizing scientific methods of pig breeding. In improving pig breeds, they have persisted in introducing fine breeds of boars from outside and hybridizing them with local sows. In improving breeding methods, they have persisted in switching from feeding pigs with cooked, thin, and uniform food into feeding them with raw, thick, mixed food. By so doing, they have shortened the growing time and raised the ratio of pigs slaughtered to pigs bred to 76 percent, 9 percent higher than that last year.

Building Pig Breeding Industry

HK241347 Beijing RENMIN RIBAO in Chinese 22 Dec 84 p 2

[Commentator's article: "Speed Up the Development of Pig Breeding"]

[Text] Sichuan has vigorously developed its pig breeding industry. As a result, there is a plentiful supply of pork in its urban and rural markets and the prices of pork are stable there. Sichuan has not only been able to basically meet its own demand for pork, but is also able to supply 1,200 metric tons of pork for 18 provinces, municipalities, and cities every day. This is a success that Sichuan has achieved through giving a free hand in developing livestock breeding. It is also a valuable contribution that Sichuan peasants have made to the state.

Why has Sichuan been able to develop its pig breeding industry so quickly? The province's fundamental experience is flexibility in its policies. To be more specific, its experience is to bravely break old conventions, to adopt flexible policies in the light of local reality and thus ensure that peasants benefit by being engaged in pig breeding. The province has discharged some areas' task of pig sale quotas, switched from dealing in pigs by a single sector into letting diverse sectors deal in pigs and thus facilitated circulation. It has adopted the policy of state-run, collective, and individual

firms each making contributions in producing and supplying food for pigs and provided diversified scientific and technological services. By so doing, it has enlivened all links in the production and marketing of pigs, continued to heighten the initiative of peasants in developing the pig breeding industry, and enabled pig production to continue to prosper.

Contrary to the situation in Sichuan, the output of pigs has dropped year by year in quite a few provinces and municipalities in our country. Why? Do these areas lack food for pigs? No, they do not. There have been bumper harvests of grain throughout our country year after year. In some areas, the output of grain has risen sharply, but the output of pigs has dropped sharply. In the past, we often said: "Livestock breeding is prosperous when there is a bumper harvest of various kinds of grain" and "the greater our grain output, the larger the number of pigs and the more the manure," as if we held that the number of pigs would necessarily increase if we had more grain. However, this is not the situation in some areas. Why? Naturally, each area has its specific causes, but a common cause has been the frequent changes in policies and the irrational prices which prevented our peasants profiting by breeding pigs. This has injured the initiative of our peasants in breeding pigs.

Of course, pigs are one of the second category of commodities of the state and their production is governed by mandatory plans. However, the decision of the 3d Plenary Session of the 12th CPC Central Committee points out: "Mandatory plans have to be implemented, but even then the law of value must be observed." However, quite a few of our comrades often lay one-sided stress on mandatory plans. Since pigs are also commodities, there is also the problem related to the law of value. If we fail to attach importance to the application of the law of value, we will hinder the development of the production, supply, and marketing of pigs by our restrictions in various spheres. Our mandatory plans must be fulfilled, but there is still much room for maneuver in developing various ways to fulfill the plans satisfactorily and in taking account of the interests of both the state and the peasants. For example, in certain circumstances, we should apply, in the light of the conditions of the market and other conditions, the law of value to regulate the production of pigs, relax restrictions on the purchases and sales of pigs, allow prices to vary as market conditions change and, under the precondition of protecting the interests of consumers, allow regional and seasonal differences in price and price difference due to different quality. All these measures are rational and are allowed by our policies. In short, as long as we do our various relevant work flexibly, we will be able to put an end to the declining trend of pig output. This has been proved by Sichuan's practice.

Recently, a central leading comrade has pointed out that we should strive to vigorously develop our animal husbandry and that now, and for a certain period in the future, the pig breeding industry will remain a priority for us. We should conscientiously popularize Sichuan's experiences and strive to increase pig production in all areas in a relatively short time.

BRIEFS

VETERANS BECOME PROSPEROUS PEASANTS--Chengdu, 16 November (XINHUA)--Thirty percent of the peasants in Sichuan Province, who have become well-off in recent years, are demobilized soldiers, according to an official of the local civil affairs department. Sichuan, China's most populous province, has 100,000 veterans who have been discharged from the armed services in recent years. Most of them were trained to do both military and civilian work while in the services. Now their skills are being turned to good account especially since the new economic reforms have taken effect in the countryside. Apart from farming and animal husbandry, many of them are engaged in fish breeding, fruit growing, transportation, construction, food processing and machine repairing. Some of them have organized economic complexes for commodity production. In the past, the official said, quite many veterans had to apply for government relief. Now they contact the civil affairs department to get technical, commercial and marketing information or inquire about how to buy transportation and processing facilities. [Text] [Beijing XINHUA in English 1212 GMT 16 Nov 84 OW]

CSO: 4020/46

TIANJIN

BRIEFS

WATER DIVERSION PROJECT COMPLETED--Tianjin, 29 November (XINHUA)--Potable water is now available in Tanggu, a port area in Tianjin, as a project to divert water from the Luanhe River was completed last week. More than 3,000 people attended a gathering held Wednesday by the Tianjin Municipal Government to mark the occasion. The project, which was started in March, is an extension of a water diversion system from Luanhe to Tianjin which went into operation in September 1983. It runs 49 km from a reservoir in Baodi County. Listed as one of the major projects to improve the city's public services in 1984, the new project will supply the area with more than 30 million cubic meters of water a year. Tanggu, bordering the Bohai Sea, is some 50 km away from Tianjin proper. The nearly 500,000 residents previously had to make do with saline water owing to surface water shortage. There are also over 100 large factories in Tanggu, using large amounts of industrial water. Tianjin will designate an economic development zone for overseas investors in the Tanggu area as part of the city's measures to open wider to the outside world. [Text] [Beijing XINHUA in English 1310 GMT 29 Nov 84 OW]

AFFORESTATION WORK--According to statistics, Tianjin Municipality has planted 9.13 million trees this year. [Summary] [Tianjin City Service in Mandarin 1430 GMT 24 Dec 84 SK]

CSO: 4007/138

FOODS FOR MINORITIES DEVELOPED

OW150929 Beijing XINHUA in English 0734 GMT 15 Nov 84

[Text] Urumqi, 15 November (XINHUA)--Canned mutton and beef, butter, cheese, preserved fruits and juice are now becoming increasingly popular among Xinjiang's minority nationalities, according to an official from the autonomous region's food department.

Traditionally, he said, the region's 13 ethnic minorities used to eat boiled mutton and nang (a kind of bread). Although Xinjiang is famous for its grapes and melons, these are available only in the harvesting seasons.

The change came with the development of agricultural production and the expansion of the region's food industry, he added.

To cope with the minorities' increasing needs, a large number of meat processing, canned food, dairy, soft drinks and preserved fruit factories have been established in cooperation with other provinces and regions. Up-to-date techniques have also been introduced from Beijing, Tianjin, Shanghai and Jiangsu Province.

The region's products now include dried beef, canned beef and mutton, bottled horse's milk, refined butter, cheese and milk powder.

Preserved melons, extract of grape, apricots, melon jam, canned figs and various fruit juices are also available.

The region's food industry, now second only to the oil industry as Xinjiang's largest industrial sector, reached 1.165 billion yuan (about U.S. \$470 million) in 1983, twice the figure for 1979.

CSO: 4020/46

XINJIANG

PRODUCTION CORPS HOLDS 30TH ANNIVERSARY RALLY

HK241401 Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 22 Dec 84

[Excerpts] The rally to mark the 30th anniversary of the founding of the Production and Construction Corps and the congress of advanced collectives and advanced individuals lasted 8 days and successfully concluded this afternoon. The congress named and commended 183 advanced collectives, 72 model workers, and 412 advanced individuals.

After the opening of the congress, on behalf of the corps, Zhao Yuzheng, deputy political commissar of the corps, read the decision of the Xinjiang Production and Construction Corps on commending the advanced collectives, model workers, and advanced individuals. At the congress, the citations personally signed by Chen Shi, commander of the corps; and Yang Huansheng, political commissar, were also read.

Xie Gaozhong, first deputy commander of the corps, delivered the closing speech. He said: This congress is the largest and most representative congress since the restoration of the corps in 1981. With a view to accomplishing the task of quadrupling the gross industrial and agricultural output value, we must completely implement the decision of the 3d Plenary Session of the 12th CPC Central Committee on reform of the economic structure, must further emancipate our minds, and must relax policies. Everyone must be resolved to carry out reform and must catch up with, and surpass the advanced. From the practice of reform, we must look into and create an agricultural reclamation economic structure with Chinese characteristics and with full vitality and vigor. We believe that so long as we go all out to make our country strong, are resolved to carry out reform, unite as one, carry forward the revolutionary cause, forge ahead into the future, and are bold to open up a new path, we can overcome and defeat all difficulties and setbacks, the corps can achieve even greater results, and the agricultural reclamation economy can be further promoted.

CSO: 4007/138

XINJIANG

BRIEFS

LIVESTOCK PRODUCTION--Xinjiang Region has reaped a bumper animal husbandry harvest for 7 consecutive years. The amount of livestock on hand in the whole region this year has reached some 30.72 million head and is some 480,000 head more than last year. The region has provided some 33.7 million jin of meat to the state, which is some 3 million jin more than last year. The region's output of milk has reached some 190,000 tons and the region has overfulfilled its quota for milk production for 1984 by 10 percent. The number of pigs, cattle, and sheep slaughtered has reached some 7.9 million head, an increase of some 770,000 head over last year. The region's output of sheep's wool this year is some 5,000 tons more than last year. [Summary] [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 25 Dec 84 HK]

ANIMAL INCREASE--Urumqi, 12 November (XINHUA)--Xinjiang, China's second largest pastoral area, sold 90,000 cattle, horses, donkeys, mules and camels to other parts of the country in the first 10 months of this year, according to officials in the Uygur autonomous region. The sales brought the northwest China region's total to nearly 500,000 in the past 4 years. Xinjiang's herds have increased at an annual rate of 4 to 5 percent since 1980, and now number over five million. Sales of donkeys last year were a record 133,000; sales of farm and breeding cattle topped 20,000 in the first 9 months of 1984, equal to the total for 1983. This is the 7th consecutive good year for Xinjiang herdsmen. [Text] [Beijing XINHUA in English 0858 GMT 12 Nov 84 OW]

CSO: 4020/46

GOOD GRAIN HARVEST REPORTED IN 1984

QW170906 Beijing XINHUA in English 0846 GMT 17 Dec 84

[Text] Lhasa, 17 Dec (XINHUA)--Tibet has reaped a good grain harvest this year following three consecutive years of natural disasters.

Grain output in Tibet topped 480,000 tons this year, 26 percent more than last year. The number of animals in stock has also exceeded that of last year.

Relaxed rural policies and agricultural tax concessions have given great impetus to the incentives of Tibetan farmers and herdsmen.

Output increases have been reported in all the six prefectures and municipalities. The major grain producing areas of Xigaze, Qamdo and Shannan prefectures reported more than 30 percent increase over last year.

The government invested 35.5 million yuan in building capital projects for farmland and grassland improvement, 1.37 times more than last year. The investment in grassland construction was 20 million yuan, ten times as much as last year.

Up to now the region has 8,100 reservoirs and pools to store water diverted from rivers and snow mountains and 580 pump wells enough to irrigate 152,000 hectares, 67.2 percent of the total cultivated land in the region.

CSO: 4020/52

BRISK LIVESTOCK MARKET FLOURISHES

OW091018 Beijing XINHUA in English 0854 GMT 9 Dec 84

[Text] Lhasa, 9 Dec (XINHUA)--The institution of private ownership of livestock has brought a brisk market of livestock and fresh meat in various parts of Tibet. In Lhasa, 6,000 to 7,500 kilograms of fresh beef, mutton are put on the market every day. Many residents are buying live cattle and sheep and slaughtering them for their winter food storage. Fresh beef and mutton are reported to have been available in all the cities and towns in Tibet.

In Markam County, herdsmen from a township drove 250 yaks and 500 sheep to the county livestock market and sold them in just four days. Herdsman Gesang Banaue sold one yak and 15 sheep for more than 800 yuan. Now animals are privately owned in Tibet, he remarked. People can sell as many as they can raise at the free market. The prices [word indistinct] with demand and are quite reasonable, he added.

A Tibetan woman cadre bought one yak and got more than 200 kilograms of meat, enough for her family of four to consume this winter and next spring. Agriculture and animal husbandry are given priority in the development of local economy, according to a recent resolution of the Tibet regional party committee. This is part of the program to readjust the local economic structure to prepare for faster development in coming years. The resolution said that Tibet should be more open, both to other parts of the country and to the outside world.

CSO: 4020/52

BRIEFS

PLANT SURVEY COMPLETED--Lhasa, 18 Dec (XINHUA)--Chinese scientists have collected more than 11,900 plant specimens in a four-year survey of the Tibet Autonomous Region. The team began investigating on plant species on the average of 4,000-meter plateau in 1981. They discovered a dozen new wheat mutations, six of them unknown abroad, and more than 50 varieties of highland barley. The highland barley was found to grow at elevations up to 4,730 meters above sea level. Spring wheat, rape, apples and some vegetables also survived in fields above 4,000 meters. Also discovered were specimens including a walnut tree estimated to be about 1,000 years old, a pomegranate tree, about 800 years old, a mulberry tree, about 1,600 years old, and peach tree, about 1,000 years old. The survey, which concluded in October, was sponsored by the Chinese Academy of Agricultural Sciences and the Tibet Regional Academy of Agricultural and Animal Husbandry Sciences. [Text] [Beijing XINHUA in English 0258 GMT 18 Dec 84]

CSO: 4020/52

TEA OUTPUT, EXPORT REPORTED EXPANDING

Kunming YUNNAN RIBAO in Chinese 25 Sep 84 p 1

[Article by Wei Moucheng [7614 6180 1004], Su Fanghua [5685 5364 5478] and Zhuo Weihua [0587 4850 5478]: "Yunnan Has Become One of the Nation's Major Bases of Export Tea: The Party's Policy Is Great; Tea-producing Areas Put on a New Face"]

[Text] Famed throughout China and the world, Yunnan tea has experienced rapid and vigorous output growth in the 35 years since Liberation. In 1983, tea production totaled 514,265 dan and procurement reached 438,979 dan in the province, representing an 8.3- and a 21-fold increase over the respective levels in 1950, and tea export totaled 188,000-plus dan, a more than 16-fold increase over 1952. Thus Yunnan has become one of China's tea-export bases.

Yunnan is one of the homes of tea and has a long history of tea production, and the province's celebrated Puer tea was reknowned throughout the world as early as the Tang dynasty. Nevertheless, in the days of old China, tea production was nearly destroyed, plantations covered only 300,000 mu, output was only 55,000 dan, procurement totaled only 20,000-some dan and less than 1,000 dan of Puer were produced. After Liberation, tea production rapidly revived and expanded, the number of counties and cities growing the crop increased from several tens to 120 currently, the area devoted to tea has grown to nearly 1.6 million mu and 20 counties annually produce 30,000 to 50,000 dan of the crop.

Prior to Liberation, roasting, the initial stage, was done solely by hand, and though there were three sophisticated factories in Yunnan, manual labor was still largely employed. Now the province boasts 2,112 semimechanized initial-processing plants and 42 sophisticated tea factories and can produce more than 100 varieties of the 5 major teas--black, green, jasmine, Puer and pressed-cake tea. Yunnan-red Gongfu tea comprises 40 percent of all Gongfu tea China exports, and Puer output has leaped to 30,000-plus dan.

12431

CSO: 4007/37

INSTITUTE PROTECTS RARE TROPICAL PLANTS

OW121142 Beijing XINHUA in English 0908 GMT 12 Nov 84

[Text] Kunming, 12 November (XINHUA)--The Yunnan Tropical Plant Institute has domesticated more than 2,000 species of tropical plants, including 80 on the state protection list.

Located near the Xishuangbanna Nature Reserve in southwest China, the institute has two botanical gardens totalling 20 hectares, specially for rare species on the verge of extinction.

Among the rare species in the gardens are *parashorea (chinensis wang hsie)*. They found this species in a virgin forest in Mengla County and brought back 40 seedlings. Now three of them have grown over seven meters high and nine centimeters in diameter. The discovery of the species also substantiate the fact that xishuangbanna belongs to the tropical plant zone.

Another precious species is *camellia chrysantha* native to southern guangxi and the northern part of Viet Nam. With golden yellow flowers, the species is one of the famous ornamental plants in the world. The institute brought in the species from Guangxi in 1972 and now three of them have grown over six meters high, with the trunk diameter being eight centimeters.

In addition, they discovered in the gullies of tropical forests a special species and named it "*vatica xishuam bannaensis*."

Xishuangbanna has some ancient species which are hard to find in other forests. They are called by botanists "living fossils." About seven of them have been planted in the institute's gardens. They include "*many lietia wangiiltu*," "*cycas siamensis miq*" and "*podocarpus imbricata bi*."

The institute is now making a systematic observation and study of these rare species.

CSO: 4020/46

YUNNAN

BRIEFS

BUMPER HARVEST--According to YUNNAN RIBAO, the province has reaped an all-round bumper agricultural harvest this year. According to the price level of 1980, this year's gross agricultural output value will reach the 7 billion yuan level for the first time, totalling 7.758 billion yuan, an increase of 810 million yuan compared with that in 1983, or an increase of 11.7 percent, thereby hitting all-time high. As a result of rationally readjusting the province's agricultural structure, the province's grain output volume has exceeded the 20 billion jin level. In 1984 the province's grain output value will increase by 5.2 percent compared with last year; while the output value of diversified operations will reach the level of 4.677 billion yuan, an increase of 16.3 percent compared with last year. In the gross agricultural output value, the output value of grain has decreased while that of diversified operations has increased. Thus, this reflects the fact that the province has put an end to the traditional agricultural production structure, which focuses on growing grain. [Summary] [Kunming Yunnan Provincial Service in Mandarin 1100 GMT 17 Dec 84 HK]

RECORD GRAIN HARVEST--After achieving increments of grain output for four successive years, the province reaped a further bumper harvest this year. The total output volume was 20.1 billion jin, an increase of 1.1 billion jin compared with the record level of last year. [Summary] [Kunming Yunnan Provincial Service in Mandarin 1430 GMT 6 Dec 84 HK]

CSO: 4007/127

ZHEJIANG

BRIEFS

PEASANT COOPERATIVE SHAREHOLDERS—Hangzhou, 14 Nov (XINHUA)—To date, over 90 percent of the peasant households in China have become shareholders of the supply and marketing cooperatives. According to incomplete statistics, the supply and marketing cooperatives throughout China had absorbed 1.35 billion yuan of investments from among the peasants as of end of October. With peasants becoming shareholders in the supply and marketing cooperatives, the supervision, management, and service of the cooperatives have been much improved. [Summary] [Beijing XINHUA Domestic Service in Chinese 0229 GMT 14 Nov 84 OW]

CSO: 4007/127

Crop Science

AUTHOR: YANG Tingxiu [2799 2185 4423]

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TITLE: "Systems Analysis of Crop Planting in China"

SOURCE: Beijing SHULIANG JINGJI JISHU JINGJI YANJIU [QUANTITATIVE AND TECHNICAL ECONOMICS] in Chinese No 6, 5 Jun 84 pp 11-18

[Abstract] Systems analysis of crop planting is the key to agricultural growth. In China, the limited resource of some 1.5 billion mu of farmland is inadequate to meet all agricultural requirements; land resources other than farmland are required to meet some of these demands. Ecological protection needs to be promoted in order to stop further deterioration, such as water depletion and soil erosion, desertification, worsening natural calamities and decreasing soil fertility. Afforestation and the maintenance of soil moisture and fertility are ecologically beneficial activities. Soil fertility is closely related to organic fertilizer, which is mostly manure from hogs and cattle. Their feed is mainly farm waste, the inedible parts of crops. Peasants in today's China need this waste as fuel; therefore, small coal pits, local hydroelectric power, solar furnaces and manufactured methane should supply energy to peasants while retaining farm waste for animal feed and enhancing soil fertility. Planting legume plants (such as soybeans) can add nitrogen to the soil and supply badly needed vegetable protein instead of expensive animal protein to the Chinese diet. In short, planting has three purposes: providing food and fiber for people, providing feed for animals and restoring fertility to the soil. The deficiency of organic manure in the soil can be compensated with chemical fertilizer, but this requires cash outlays without any ecological benefits. Pasture legumes can be planted as food for domesticated animals, whose manure can then be used as an organic fertilizer; this measure can economize on acreage while building up soil fertility. Synthetic fiber can fill some of the textile needs to relieve the demand on farmland in sowing cotton. Likewise, chrysanthemum sinense (a woody, sweet-leaf plant that grows well in hilly areas) can relieve the pressure on cane sugar for the food-processing industry. More chemical fertilizer (instead of higher-priced grain) should be imported to be bartered for peasants' grain in order to reduce outlays of foreign exchange, while peasants may benefit with much higher crop yields. Summing up, the author's concepts on crop planting in China are reduced to a table that compares actual 1980 planting acreage with that of the year 2000. It is suggested that the acreage planting with food grains be reduced by 250 million mu (from some 1.65 to 1.4 billion mu)

during these 2 decades while soybean acreage be increased by 200 million mu (from some 108 million to 308 million mu). It is suggested that the acreage of feed crops be increased by 100 million mu from some 140 million to 240 million mu from 1980 to 2000. Two figures in the paper demonstrate the benefits to the ecology, the economy and the society and analyze the factors influencing unit crop yield in the other.

10424

CSO: 4011/60

Forestry

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ORG: FAN and TANG of Shenzhen Municipal Garden Landscaping Corporation;
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TITLE: "Floral Characteristics of Main Forest Types in Shenzhen Special
Economic Zone"

SOURCE: Guangzhou REDAI DILI [TROPICAL GEOGRAPHY] in Chinese No 2, Jun 84
pp 98-106

[Abstract] The forest on Wutong Mountain, at the upper reaches of the Shenzhen Water Reservoir, was selected as the key site, and the vertical distribution and floral characteristics of the main forest types were investigated and recorded. The investigation consisted of 18 selected lots, each 333 square meters in area. The tree stand factors of each tree, such as crown cover, tree height, chest-height tree circumference and height under branches were measured; in addition, forest renewal and its covering plants, the crown density of the canopy, the trunk cross-sectional area and the soil profile were measured. The timber volume of the tree stand was thus calculated. The tree species of three levels were enumerated: up to 500 meters (South Asia tropical evergreen broadleaf trees), from 500 to 900 meters (South Asia tropical mountain evergreen broadleaf trees) and from 900 meters to the peak, and 944 meters in elevation (mountain peak evergreen broadleaf trees). The predominant tree species are *Indocalamus longiauritus*, *Choerospondias axillaris*, *Litsea subcoriacea*, *Sarcandra glabra*, *Machilus breviflora*, *Castanopsis fissa*, *Psychotria rubra*, *Diospyros morrisiana*, *Itea chinensis*, *Rhodomyrtus tomentosa*, *Rapanea neriifolia* and *Schima superba*.

The main floral characteristics are as follows: most crown canopies of stately trees have a single layer; in the forest, there are well-defined layers, including undergrowth and grass layers. Dwarf trees grow near the peak. At elevations of 200 to 700 meters on the middle and lower slopes, there has been relatively severe deforestation but tree growth is still good with timber volume as much as 117 cubic meters per hectare at an elevation of 300 to 400 meters. Secondary growth is apparent in the piedmont area with a high density of small- to medium-diameter trees at chest height and with a volume as high as 142 cubic meters per hectare at elevations of 10 to 100 meters.

The authors suggest that the forest on Wutong Mountain be protected and nurtured for the environment and as a watershed. A nature conservancy area should be established for the mountain vicinity with a forest park opened to the public if ecologically permissible. Garden landscape tree species adequate to the local region should be domesticated and propagated. Rare tropical and subtropical tree species should be introduced and cultivated for better landscaping and tourist appeal.

Also participating in the investigation of the forest types were Lin Yangsan [2651 0111 0005], Xiao Mianyun [5618 4875 7301], Wang Bingzhen [3769 3521 4176], Li Gang [2621 0474], Liu Zhongjian [0491 0112 0256], Zhou Guomei [0719 1613 4168] and Huang Jinyou [7806 6930 0645].

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CSO: 4011/61

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